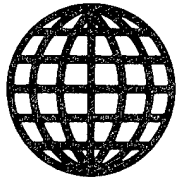


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# ***JPRS Report***

## **Soviet Union**

### ***Economic Affairs***

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# Soviet Union

## Economic Affairs

JPRS-UEA-87-036

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4 DECEMBER 1987

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## INVESTMENTS, PRICES, BUDGET, FINANCE

### Trends In Fixed Capital Replacement Policy Viewed

18200001 Moscow *PLANOVOYE KHOZYAYSTVO in Russian* No 9, Sep 87 pp 66-76

[Article by A. Malygin, department head at Scientific Research Institute of Economics of USSR Gosplan and Doctor of Economic Sciences: "Trends in Intensification of Reproduction of Fixed Capital and Production Capabilities"]

[Text] Problems concerned with the use of capabilities at the planned level. Technical-economic validation for the replacement of existing production operations. Features of the technical plans for the reorganization and technical re-equipping of enterprises. Efficient use of capital investments.

A large reserve for economic growth is that of making more complete use of production capabilities. "The planning and economic organs and the collectives of enterprises" it was noted during the 27th CPSU Congress "must do everything possible to ensure that available capabilities are operated at the planned level" (1). Today their maximum workload is being hindered by shortcomings conditioned by many years of primarily extensive development of the national economy. In particular, they are found in the planning methodology and in the normative support for the preparation of capital investments, that is, in the validation and planning for enterprises and thereafter during the planning and realization of capital investments and planning solutions. The overcoming of obsolete stereotypes in planning and administration will be of assistance in converting over to mainly intensive and more effective production means and administrative methods.

The planning for production and capital construction volumes is based upon the capabilities available. Only after consideration has been given to the maximum potential for output production using existing capabilities will the problems concerned with expanding them, with the aid of capital construction, be taken into account and determinations made as to the forms for carrying out this work and the requirements for capital investments. An increase in output with minimal expenditures can be achieved mainly through the technical re-equipping and modernization of enterprises. A change in the balance of production capabilities is associated with practically all of the more important sections of the annual and five-year plans and is dependent upon their availability, withdrawal or placing in operation. Planning capabilities are created in conformity with the requirements for particular products and they are introduced into operations in conformity with the planned level.

The taking into account of production capabilities, the degree of their workload and changes — this constitutes an exceptionally important sphere of planning and statistical activity. The efficient use of the tremendous resources available for the development and maintenance of the entire production apparatus is dependent upon the results realized from this sphere. A capability is a most important characteristic of this apparatus. Its planned value expresses the production potential, that is, the potential for maximum output, which is dependent upon the technical-economic indicators for the equipment and technology employed, the production organization and upon personnel staffing and skills. A comparison of the actual production of goods against the planned capability describes its workload.

Under modern conditions, it is becoming increasingly more difficult, for various reasons, to use production capabilities at the planned level. First of all, an inadequate technical production level, one which requires a large number of workers and increased consumption of raw materials, other materials, power and fuel, is adversely affecting the situation. The situation is further complicated by imperfections in taking the capabilities into account and especially — the existing economic mechanism. Unfortunately, statistics does not take into account the planned capabilities on a continuing basis or for each enterprise. They are reflected in the structure of available capabilities of enterprises only up to that point where they are still in the developmental stage. Thereafter, a production capability becomes an accounting category.

During the preparation of tasks for planning, during the actual planning for enterprises and also in connection with the production capability of an existing industrial enterprise, in conformity with the principal conditions for computing them, a planned production capability is understood to mean the maximum possible annual production of goods or a volume for the extraction and processing of raw materials in a given assortment and product nomenclature, with full use being made of the equipment and production areas. The concept of a production capability appears to be clear and yet its actual realization is accompanied by many conditionalities and allowances. Its size is affected by the nomenclature of the products and the selection of a leading element and most important — by departmental interest, which inhibits an objective evaluation of the available capability during the next preparation of a plan.

An analysis of the technical-economic indicators for a representative range (more than 5,000 capabilities) of enterprises newly introduced into operations since 1970 underscores the fact that capabilities, following the expiration of a certain amount of time, produce roughly 20 percent less output than their planned values. Moreover, the average level of use of a planned capability was higher than the overall average at only one third of the enterprises and amounts to approximately 95 percent of the planned capability and at the remaining enterprises



— only 66. It is emphasized that analysis was carried out only at those enterprises where the periods for developing the planned capabilities had expired, where definite changes took place in connection with the planned tasks for output production, where capital work was carried out within the limits set for the production development fund, where new fixed capital was placed in operation and where obsolete means of labor had been removed. In 1985 alone, the capital investments employed at existing industrial enterprises reached 8.6 billion rubles.

In the face of such expenditures, a substantial increase in production capabilities was expected to take place at a majority of enterprises and also ministries and departments. However, with only minor exceptions, this did not occur. The volume of products and services exceeded the initial planned capabilities (by 5.15 and 7 percent respectively) only at enterprises of ferrous metallurgy and the gas industry and also at communications installations. Obviously, the technical branch characteristic of production capabilities had an effect here: their scale, stability and duration of period of service. For example, a modern blast furnace, rolling mill, gas line or compressor station constantly receive the attention of economic and planning organs. Even under the influence of departmental interests, it is practically impossible, over a period of 10-15 years, to change any of their technical-economic characteristics, and particularly production capabilities, towards a reduction in their effect.

The economies of enterprises, the branch or the country are sensitive to such changes.

The situation is different in the light and food industry, the construction industry and in some branches of machine building. Here there are more extensive objective and subjective opportunities for lowering planned capabilities. As a result, a lowered use of these capabilities is observed: for the construction industry — by 53 percent and for the food industry — by 62 percent. Labor productivity and production costs in these branches are insufficient compared to the planned levels.

A reduction in the planned production capabilities, in the case of the existing economic mechanism, occurs both during the course of validating the planned production volumes and as a result of a lack of balance in the attendant capabilities, owing to insufficient support for the enterprises in the form of labor and material resources. A study of enterprises introduced into operations since 1970 has shown that the annual support for them in the form of material resources amounted to not more than 80 percent of the planned requirements. Hence, in order to achieve the full use of production capabilities, the missing volume, amounting to almost one fifth of the entire production potential, must be created. This is a tremendous construction program and one which requires roughly 300-400 billion rubles of capital investments. Up until recently, such tasks were resolved as follows: if there was a shortage of capabilities for satisfying a particular requirement, new ones were created.

Approximately 60 percent of all production capital investments were used for new construction and for expanding existing enterprises.

A new approach is now being used. A balance must be achieved in the attendant production capabilities in accordance with their more complete planned values and with the aid of reorientation of existing enterprises for the production of needed and missing types and volumes of products, through an increase in their technical-economic level as a result of modernization and technical re-equipping. The dissatisfaction of many enterprises with their manpower must be eliminated on this same basis.

In order to achieve these goals, a need will exist for constant engineering-economic analysis of the functioning and status of capabilities, through improvements in the work of enterprises. Capital investments for the re-equipping of production and for achieving balance in capabilities must be based, similar to expenditures, upon new construction. Planning and research work is required for the reorganization of existing production. Technical-economic justifications with an analysis of inter-branch and intra-branch relationships and with disclosure of the national economic need and economic advisability of measures carried out, detailed technical plans for the reorganization of enterprises and modern plans for the organization and carrying out, as a rule, of construction-installation and operational works integrated in time — all of this must become mandatory in connection with technical re-equipping and modernization. Of five technically re-equipped enterprises, only one was provided with completed planning-estimates documentation.

It is our opinion that effective balance and proportionality in the development of intra-branch production operations and branches can be achieved with the creation of conditions for achieving balance in inter-related production efforts in accordance with fully planned capability. At the present time, balance in the output of inter-related production operations is based upon the use of capabilities that is by no means satisfactory. Large reserves are available here. For example, the data obtained from an analysis of branch materials for the chemical industry reveals that the enterprises operate under an extremely different workload for planned capabilities. For chemical reagents it is 19 percent, plastics — 43, aniline — 50, dyes — 59, chemical fiber — 80 and organic synthesis — 108 percent. In agriculture, the capabilities for the raising of livestock at times exceed by a factor of 1.2-1.3 the capabilities for processing them. Many such examples could be cited. However, the principal concern is of a different nature.

It seems to us that the purpose and essence of technical-economic justifications for the modernization and technical re-equipping of enterprises, in addition to uncovering the need and economic advisability for their re-equipping, must be an analysis of the intra-branch

and inter-branch relationships and support for the efficient operation of inter-related production efforts. An obvious need exists for the pre-planning coordination of the work of inter-related planned capabilities. In the technical-economic justifications for the re-equipping of existing production efforts, balance correlations must be presented for each enterprise with its direct partners for resources and finished product. By analogy with the selection and justification for contractual relationships between existing enterprises and the practical formation of output delivery plans, a determination should be made during the stage of technical-economic justifications with regard to the future contractual production relationships and the proportionality for the restructured capabilities. The final goal of the technical-economic justifications for the reorganization of existing production efforts is finding and proving the possibility of achieving maximum effectiveness in the functioning of reorganized and re-equipped enterprises.

Certainly, if a particular enterprise under review includes a particular special purpose national economic program or is an element of a territorial-production complex, then in such instances the production relationships would appear to be predetermined. In the technical-economic justifications, they are defined more precisely from a quantitative standpoint, the creation of a future enterprise is coordinated with allied enterprises in terms of the planning and construction schedules and the task for planning the capability and cost of construction and re-equipping is defined more specifically. When revealing the production relationships of re-equipped and modernized enterprises in the technical-economic justifications, the changes in allied production operations included in a program or complex should be taken into account. Here we have in mind changes associated with the placing in operation of capabilities through the construction of new and the expansion, modernization and technical re-equipping of allied enterprises, with the carrying out of other organizational-technical measures and with the establishment of a new nomenclature for the products.

The functions of technical-economic justifications for raising the effectiveness of existing production operations must not be limited merely to the formation of tasks for planning modernization and technical re-equipping for specific enterprises. They can also serve as the foundation for branch and territorial programs for the development and distribution of material production and as a means for solving problems concerned with the efficient use of labor resources and the development of a production and social infrastructure, especially transport and power engineering lines of communication, improvements in housing and cultural-domestic conditions and other aspects of the production sphere.

In the branch and territorial programs for production development and distribution, the creation of or a change in capabilities at existing enterprises can be coordinated while taking into account their inter-related nature.

Thorough technical modernization of production is unthinkable in the absence of a radical reorientation of planning-estimates work. A need exists for improving the very approach employed for planning and changes must be realized in the priority trends for planning work, its structure and content. A priority task for planning organizations is that of satisfying the requirements of the modernized and re-equipped enterprises for the planned output. Secondly, the needs of expanded and newly created enterprises must be satisfied, assuming that the requirement and feasibility for them derive from the results of pre-planning work: technical-economic justifications, branch and territorial programs for production development and distribution.

The efficient reorganization of enterprises is impossible in the absence of a well developed technical plan. During the 27th CPSU Congress, emphasis was placed upon the fact that "it is impossible to achieve important changes based upon the former logistical foundation. We view the solution as being thorough modernization of the national economy based upon the latest scientific and engineering achievements" (2).

A technical plan embodies a task for technical-economic validation in which the production capability is determined taking into account its optimum relationship to allied enterprises. The capability appears on the order of a socially necessary value. It must not be subjected to changes either in the technical plan or during subsequent construction.

In actual practice and for various reasons, the planned capabilities are often examined apart from the national economic balance in accordance with the motives of special local interests. This occurs more often than not during construction under the pretext of so-called improvements in the plan. Such "improvements" appear at those times when the builders do not concern themselves with the estimated cost. As a rule, the proposal consists of increasing the production capability by 3-5 percent, but with growth in the estimated cost of 20-30 percent. The client accepts these changes out of fear of losing the contractor and delaying construction. Subsequently, the capabilities increased during construction are quite often not used to their maximum potential, since they were changed to the exclusion of any link to the inter-branch or branch balance.

The harm caused by a lack of balance in an intensification of planned capabilities is greater than that caused by an overexpenditure of resources during construction. In our opinion, an improvement in the plan signifies merely a reduction in estimated cost as a result of growth in labor productivity, a savings in material resources and other useful measures.

The technical plans for modernized and re-equipped enterprises must differ substantially from a plan for new construction. The more interesting portion, that associated with the replacement and withdrawal of fixed

capital, growth in labor productivity and the release of personnel must be singled out in them. Importance is attached to ensuring that these draft solutions have a convenient form for their subsequent accounting in the planning of production capabilities, fixed capital, capital investments and the number of employees.

Those active methodological and instructional directions and normative documents which regulate the development of technical-economic justifications and technical plans must be reviewed. The modern requirements for planning and estimates documentation for all output planned must be formulated in them.

As borne out by an analysis of the technical-economic indicators for the above-mentioned enterprises placed in operation since 1970, the availability of labor resources exerts an active influence on the workload level for the production capabilities and on their mutual balance. The interconditionality in the use of labor and material resources raises a question concerning the advisability of examining them jointly, while taking into account the branch and inter-branch relationships. An examination of such interconditionality in each specific ministry, department, association and enterprise should commence with those subunits needing a particular number of employees, with their specializations, skills and number being taken into account. As a rule, the volume of goods produced in these subunits is inadequate not only compared to the planned level but also for the allied enterprises. The latter, having failed to receive their raw materials and other materials in a timely manner, despite a surplus of man-power, are unable to operate at their full planned capability. Hence the conclusion can be drawn that one of the chief reasons for the inability to make full use of the planned production capabilities throughout the entire national economy — failure to staff the enterprises with specialists and workers possessing the needed specialization and skills.

Analysis also reveals that the missing portion of workers (compared to the planned level) at enterprises which are understaffed with personnel amounts to one fourth and the percentage of surplus workers at overstaffed enterprises — approximately 20 percent. The balance value for the shortage is 0.4 million persons, or 3-5 percent of the planned number for the entire range of enterprises. This value is relatively small and fully acceptable for our country with its large territory and differences in climatic and geographic conditions. However, we cannot rest content with such a situation. Its acute nature is characterized not by the balance value for the shortage, but rather by the entire missing number for all of the understaffed enterprises. This is quite another scale for the problem. Its solution is associated not only with the redistribution, retraining and resettlement of man-power, but also with the redistribution of capital investments, the development of the non-productive sphere and, most important, with the reorganization of production proper. Such a task was established and revealed fully in the Political Report of the CPSU Central Committee to the party congress.

Today the situation is such that an impression is being created regarding the availability of surplus production capabilities and unnecessary working positions. It would seem that there are strong justifications for this and that definite measures are being carried out, for example, in connection with certifying and reducing the number of working positions. However, such measures are inadequate. They do not touch upon the radical reorganization of production or the true release not of working positions but of the number of individuals employed.

In the face of a surplus of production capabilities, the national economy continues to experience shortages in certain products. The solution for this contradiction must obviously be found not in the construction of new capabilities, which require additional labor resources, but in the creation of enterprises which furnish the needed production volumes with a reduced number of employees, that is, which ensure a higher level of labor productivity. It bears mentioning that the increase in labor resources expected during the current five-year plan is considerably less than the increases of the preceding five-year plans and could be utilized fully in the non-productive sphere of the national economy.

The shortage in the number of workers at enterprises of the light and food industry, the construction industry and in machine building and animal husbandry amounts to approximately one third of the planned requirement. Enterprises of the chemical, power engineering, forestry, pulp and paper and wood-working industries are experiencing man-power shortages, but to a lesser degree. At the same time, planning and construction are underway for a whole series of new enterprises with a resulting requirement for additional employees.

Modernized and re-equipped existing production operations, which can furnish a substantial increase in labor productivity based upon qualitative growth in the capital-labor ratio and in the results obtained therefrom, can serve as the principal source for lowering the requirements for labor resources. Today the capital-labor ratio is high and still it is not producing adequate results: almost one fourth of the fixed capital, similar to planned capabilities, is not being utilized fully for various reasons. Unsatisfactory labor productivity is closely associated with the use of planned capabilities and with ensuring the availability of their labor and material resources and coordinated operations among related production efforts.

The program aimed at radically developing the economy and growth in its efficiency are advancing new requirements with regard to capital investments. They must be directed towards raising labor productivity and lowering production expenses, that is, realizing a savings in labor and material resources. As a result of the efficient use of capital investments, the plans for the next 15 years call

for the production apparatus to be doubled in size and for it to be operated in full conformity with the achievements of scientific-technical progress and the available labor resources.

This large task requires appropriate methods for a reliable solution. It has been assigned at the national economic level and it must be carried out in the form of specific and general measures concerned with the use of capital investments, the effectiveness of which is evaluated from a national economic standpoint. Such an adequately developed instrument is available in the resource structure for an economic evaluation of the measures. In order to avoid the adoption of arbitrary decisions, use should be made of economic methods of analysis which have been thoroughly tested. The standard method for determining the economic effectiveness of capital investments must be (taking into account the requirements for protecting the environment and working conditions) the principal instrument for the formation of a more economic production apparatus.

The overall effect of social production from specific measures is evaluated according to the standard method, in the form of an increase in national income or profit and is compared against the capital investments in these measures. This method also calls for an evaluation of each specific measure for developing and selecting the best of the variants for carrying it out. A comparison of them and a selection under present conditions are becoming an important instrument for introducing the results of technical progress.

The best variant is considered to be that one which, in the shortest possible time, provides reimbursement for capital expenditures through savings in current expenditures for live and materialized labor. However, the evaluation of capital investments is not limited by its selection. The best variant must satisfy the requirements for ensuring national economic effectiveness and towards this end it is compared against the acceptable value for the so-called norm for comparative effectiveness of capital investments. The latter reveals the amount of reduction in production expenses that is feasible for the given economic situation, per ruble of additional capital investments expended for the best variant. The technical-economic level for the enterprise created is dependent upon this norm.

Today's norm for comparative effectiveness was adopted in the early 1970's in the amount of 0.12 rubles per ruble, that is, a ruble of capital investments must furnish not less than 12 kopecks of reduction in production cost. At the time, there was still no shortage in labor resources. The selection of the enterprises for construction and other measures were carried out for the purpose of ensuring that work was available for the workers, from the standpoint of extensive development of the national economy. A need existed for plans involving fewer capital investments and which were less capital-intensive

and acceptable from the standpoint of their labor-intensiveness. An analysis of the use of planned capabilities reveals that the norm for comparative effectiveness of capital investments, which was adopted during the 9th Five-Year Plan, has become obsolete and does not meet the modern requirements for intensification of the economy. At the present time, such a production apparatus has been formed based upon this norm, an apparatus which is experiencing a shortage of labor resources and thus in the future the capabilities will be underworked to a greater degree.

Today the opportunities for utilizing capital investments have changed radically. Compared to the early 1970's when they amounted to 1,120 rubles for every individual engaged in material production, in 1985 — 1,885 rubles, that is, and increase by a factor of 1.7. Labor productivity increased correspondingly. The volume of capital investments almost doubled during this period and yet the population and the number of workers engaged in material production increased by only a factor of 1.15. Thus it is not considered advisable to utilize capital investments based upon the economic requirements of the 1970's. At the present time, there are considerably greater opportunities for eliminating manual labor and releasing personnel for service in the non-production sphere. Under present conditions, general use should be made of the method of comparative effectiveness in the selection of capital investment variants; non-variant decisions regarding their use are unacceptable. The normative level for comparative effectiveness, as a measure for the replacement of live labor and working capital by more improved implements of labor, must be made to conform both to today's economic situation and to the long-range tasks.

A reduction in production expenses is becoming more expensive owing to limitations on labor resources and a shortage of skilled man-power. Compared to 10-15 years ago when for every ruble of capital investment there were 12-15 kopecks of reduction in production costs, today a greater volume of investments is required for each kopeck of reduction. This is borne out, as mentioned above, by the fact that almost one fourth of the planned capabilities are not being used. Hence, in order to select variants for the capabilities placed in operation during the 10th and 11th five-year plans, the value for the norm for comparative effectiveness had to be at least 20-25 percent less than the existing one, that is, at the level of 9-10 kopecks per ruble of capital investments.

We can surmise how expensive a reduction in production expenses will be in the future based upon the availability of labor resources, capital investments, the capital-labor ratio and labor productivity. The general national economic indicators for these factors, in the form of tasks for the future, are contained in the materials of the 27th CPSU Congress. Labor productivity is increasing by a factor of 2.3-2.5, the fixed productive capital and national income are doubling in size, the

proportion of manual labor in the production sphere is declining to 15-20 percent and more than 20 million individuals are being released from having to perform unskilled work.

The acceptable value for a reduction in production costs in the future will change roughly directly dependent upon the dynamics for the number of workers engaged in material production and, in an inverse proportion, upon growth in capital investments. Based upon such an assumption, the base value for the norm and the directive tasks cited above can determine, in an initial approximation, the permissible level (or norm) for the comparative effectiveness of capital investments, for selecting the variants for specific planning solutions associated with their use. According to our computations, the national economic level for comparative effectiveness for developed plans must not be lower than 4-6 kopecks per ruble of capital investments.

Certainly, this value requires branch differentiation and, quite possibly, a certain refinement as a result of an objective experimental check. At the same time, it derives from directive tasks and makes it possible to raise them to specific planning solutions. The computed norm for comparative effectiveness of capital investments is for all practical purposes lower by a factor of two than that determined in the early 1970's. This may arouse doubt with regard to the correctness of its determination and caution with respect to its use. An experimental check is needed here; it must reveal the technical level for the variants (selected with the aid of this norm) for the modernized, technically re-equipped and newly created production efforts. A comparison of them against existing enterprises and those under construction, in accordance with the technical-economic characteristics and especially in connection with the absolute effectiveness of capital investments, will make it possible to determine more accurately the norm for comparative effectiveness.

The justification for its long-range levels in branches of material production includes studies of the actual profitability for funds and the absolute effectiveness for plans realized. A determination of its optimum ratio between its average level for the branch and the value accepted as the norm for the comparative effectiveness is considered to be advisable for all branches. The ratio must be such that no reduction will take place in the average absolute effectiveness for the branch's capital investments. The branch values for comparative effectiveness must correspond to its national economic level, which ensures an economically feasible and maximum possible general expansion for the introduction into production of the specific results of scientific-technical progress realized in the planning solutions.

Let us try to find approaches for validating the possible volume of capital investments to be used for lowering production expenses. Taking into account the tasks of

the basic directions for lowering the proportion of manual labor in the production sphere to 15-20 percent by the year 2000, lowering material expenditures to 4-5 percent by 1990 and also the growth in average wages, it can be assumed that the capital investments for these measures, with an effectiveness of not lower than 4-6 kopecks per ruble of capital expenditures, will amount to not less than 40-50 percent of their overall volume, used in the production sphere. It is our opinion that this value can be used when validating the maximum level of comparative effectiveness as the proportion of "additional" capital investments. In such a case, it is easy to imagine that their remaining half must ensure an effectiveness for an increase in national income of not less than 40-70 kopecks, such that the overall absolute effectiveness, in the same measurement for the overall bulk of production capital investments, is not less than the planned return from fixed capital in accordance with the national income.

In discussing practical channels for realizing the achievements of scientific-technical progress, one must not overlook the fact that the isolated nature of their planning constitutes a substantial shortcoming. Good planning for NTP [scientific-technical progress] must be carried out based upon the coordination of and efficient continuity in scientific and technological studies, design works, planning and construction.

In the plans for economic and social development, continuity and the coordination of sections dealing with science and engineering and capital construction are possible and are partially achieved at the junction of these sections through the planning of planning and research work. One shortcoming lies in the fact that, in connection with mutually planned planning and construction operations, such a link between the indicators for scientific and engineering development and the content of planning-research activity is for all practical purposes lacking.

The advisability of limiting the direction of planning work merely to timely support for construction in the form of high quality planning documentation is by no means obvious owing to the general nature of this condition. It appears inadequate that when developing the plans for capital construction, including the plans for scientific-research work, scientific-technical progress is reflected only in a distribution of capital investments, taking into account the changes in the structure of social production and in the structure of production capabilities and fixed capital planned for introduction into operations and in the overall description of the output of enterprises where planning and construction have already commenced. Such an overall approach does not conform to the fact that scientific studies and the planned introduction of their results are directly related to one another in the form of consecutive stages in the creation and development of specific technical achievements within the framework of a single process.

The possibility of coordinating and quite possibly combining the plan for the development of science and engineering with the plan for planning-research work, or including in the latter the planned tasks for the introduction of specific technical achievements, is deserving of detailed study.

The practice of limiting the number of all-round scientific-technical programs in which measures are coordinated to the level of associations and enterprises appears to be inadequate. Ideally, the plans for direct tasks for the ministries, departments and union republics, for the introduction of specific scientific and engineering achievements, should be included on a more extensive scale. However, distinct from all-round programs, such tasks for the ministries and departments may not be associated with specific objects, the structure of which, as is known, changes substantially throughout the course of a five-year plan. The selection of enterprises and installations, where a task is to be carried out, is best left to the competence of the ministries and departments. The carrying out of the tasks can be controlled in the manner adopted for the reporting by economic and planning organizations.

It is our opinion that a new and, to a considerable degree, unused trend for improving the planning for scientific-technical progress is that of project planning. During the course of construction and the expansion, modernization and technical re-equipping of enterprises, scientific-technical achievements are carried out with the aid of plans and provision is made for the use of leading equipment, new technology and progressive labor organization. The totality of the plans in which the structure of output is defined, the engineering-economic solutions and the cost of installations become the basis for the plan for capital construction. The planners must have scientific-technical information at their disposal and be guided by direct tasks for the introduction of a leading technology, modern equipment and the types and quality of the products proposed for production. Towards this end, improvements will be required in the methods for developing the technical-economic justifications and technical plans, while taking into account the use of their results for planning the reproduction of fixed capital. In particular, it appears to be advisable in the pre-planning materials and plans for modernization and technical re-equipping to determine the volumes for both the introduction and withdrawal of fixed capital, the amounts for the replacement of production capabilities, the growth in labor productivity and the release of production personnel.

In conclusion, I would like to emphasize that one characteristic of the intensive reproduction of fixed capital and production capabilities is first of all their workload and operation at the planned level, which testify to the efficient use of capital investments and their complete output. The conditions for achieving the efficient use of production capabilities can include a balance in the planned level of work by related production efforts and

the staffing of these efforts with man-power and specialists possessing the required skills. Special importance is attached to the technical-economic level for production, one which guarantees high quality and the required volumes for the latter and highly productive and complete employment of the population. Such a technical-economic level for production is achieved as a result of thorough validation in the creation of capabilities at the pre-planning and planning stages, using various works and norms for selecting them that serve to coordinate the special purpose tasks for national economic development with the creation of specific enterprises.

### Footnotes

1. Materials of the 27th Congress of the CPSU. Moscow, Politizdat. 1986, p 41.

2. Materials of the 27th Congress of the CPSU. P 25.

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## REGIONAL DEVELOPMENT

### Sakhalin Area Resource Development Possibilities Explored

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[Article by B. Zykin, deputy head of the economics department of the Sakhalin Institute of Maritime Geology and Geophysics, AN SSSR DVNTs [USSR Academy of Sciences' Far Eastern Scientific Center], I. Panfilov, RSFSR Gosplan department head, and N. Singur, USSR Gosplan subdepartment head: "National Economic Complex of Sakhalin"]

[Text] Accelerated development of the production forces of Siberia and the Far East has been and remains an integral part of party economic strategy. As distinct from a majority of the other regions of the Far North and equivalent areas, Sakhalin Oblast has a significantly better developed economic structure. With 1.4 percent of the land area of the Far Eastern economic region and 9.5 percent of its population, it provides more than 12 percent of its industrial output.

Oblast fishing industry enterprises produce up to 10 percent of the country's fish products and as high as four percent of all the pulp and paper products produced nationwide. It mines 15 percent of all the coal produced in the Far East, up to one million tons of which is shipped out to neighboring regions. All the petroleum extracted in the oblast is supplied to other areas.

In his speech at the festive meeting dedicated to awarding Vladivostok the Order of Lenin, M.S. Gorbachev cited the slowing growth rates in the Far East as the most

serious shortcoming in its development. This is confirmed especially convincingly in Sakhalin Oblast, where the pace of industrial production growth has been 17-20 percent slower over the past 20 years than in the Far Eastern economic region and the RSFSR as a whole.

This has naturally been affected by the specifics of the branch structure of its industry, which is oriented towards the predominant development of extractive branches and inadequate development of processing.

The slowing pace of economic growth also has a direct effect on oblast social development indicators, which are considerably below the Union average. Hence, the dissatisfaction with housing, cultural and personal-services conditions and, as a consequence, the low level of permanent settlement and extremely slow increment in population. Under these conditions, it seems obviously necessary to develop a scientific concept of and basic directions for the long-range socioeconomic development of the oblast and to reveal bottlenecks and unsolved problems. This article will speak to the most fundamental of these issues.

Specialists estimate that only 55-60 percent of the bioresources in the 200-mile Far Eastern zone of the USSR are used, only 12 percent in the open ocean and only 60 percent in the 200-mile limits of foreign states.

The Sea of Okhotsk offers especially valuable bioresources, with its importance as a fishery increasing as resources in other traditional fishing areas are exhausted. The range of species here is several times greater than that in the White and Barents seas, and this basin is the equal of any in the world ocean in terms of bottom-fish productivity per unit of area. It has unique varieties of sea life, many varieties of commercial invertebrates, many types of commercially valuable algae, and the salmon catch is comparable only to the sturgeon catch in the Volga-Caspian basin.

The pace of ocean biological raw material extraction can be increased and the raw-material bioresources of the ocean can be utilized more fully if there is substantial growth in capital investment in modernizing and augmenting the fleet of vessels specialized for open-ocean and coastal fishing, in providing them with modern fishing equipment, fish-locating and navigation equipment, in developing the port system and ship maintenance centers. The unsatisfactory condition of the latter causes high losses of output and reduced efficiency of operation throughout the fishing industry.

Use of the favorable conditions of the coastal waters of the Far Eastern seas for large-scale artificial cultivation of commercially valuable invertebrates, sea fish and algae opens up extensive opportunities in the area of bioproductivity. Sakhalin Oblast has accumulated experience in developing commercial-scale salmon raising, as well as the scientific raising of ctenidia ["sea comb"] in Busse zaliv and of kelp [laminaria] in Aniva zaliv. We

need to work out in the years just ahead comprehensive measures to ensure the effective development of mariculture, in stages, and to conduct feasibility studies on the development of mariculture projects in the southern regions of Sakhalin and then in the coastal zones of the Kuriles.

The lumbering complex deserves special attention. The creation and development of facilities to harvest and process timber have been quite effective here, with about 60 percent of the wood harvested now being chemically processed to produce high-quality cellulose, paper, cardboard and products made from them, feed yeast and consumer goods. Per unit of wood harvested, the oblast produces 3-5 times as much heavily processed end product than the Union average. Branch output is also in demand abroad. However, development of the lumbering complex has been hampered since the early 1980's by the disparity between the demand for wood and the ability to harvest it. Exhaustion of the resources for increasing output using the existing technical and technological basis has also had an effect. The lack of traditional sources of lumber in the branch can be made up for by commercial utilization of deciduous forests by setting up the production of sulfate cellulose using new technology, which will require the creation of new production facilities.

Along with these measures, it is appropriate and economically justified to expand capacities at existing pulp mills and to set up the production of high-quality paper and paper consumer goods at the Kholmsk and Makarov mills, which are simultaneously solving the problems of reducing environmental pollution, improving sawmill and wood processing operations, and developing reforestation work in every way possible.

M.S. Gorbachev has set us the task of creating in the Far East a fuel-energy base which will not only meet our own energy requirements, but also supply the adjacent regions of the country with fuel and energy and export them. The fuel-energy complex of Sakhalin Oblast can play an important role in resolving it. Its prospects are associated with large and largely as yet unstudied solid fuel and hydrocarbon resources. Development of the coal industry will be determined by the necessity of accelerating the renovation of existing mines and of building a large open-pit coal mine at the Solntsevskoy deposit in Uglegorsk Rayon.

We must utilize the petroleum and gas resources in northeastern Sakhalin (off-shore deposits in particular) in the next 10-15 years. Implementation of this assignment is complicated by the extreme conditions (heavy ice in the Sea of Okhotsk and high seismicity), by undeveloped technology and methods of utilizing resources under such conditions. In this connection, we will need to boost development and experimental production, to develop a reliable specialized base and, on the mainland, enterprises to produce the appropriate equipment.



The development of off-shore gas deposits will bring an opportunity to produce motor fuel, as well as mineral fertilizers and liquefied gas, from gas condensate.

As the prospecting and surveying work develops, conditions will emerge for creating new branches of the ore industry in the oblast and, based on them, corresponding processing enterprises. The reference must first of all be to adequately proven reserves of natural sulfur and titanium-magnetite ore on the Kuriles, as well as phosphorous resources in the northern regions of Sakhalin.

Successful solution of the problems of the national economic complex of this region will be determined by the pace of socioeconomic development of the Far East as a whole. That is why it is so important and urgent to continue developing the economic ties (including production cooperation) among Sakhalin, the Kuriles and other krais and oblasts of the Far Eastern economic region, foremost in machine building, machinery and equipment repair, light and food industry, building materials industry, agricultural production, and other branches.

Particular attention must be focused on the outstripping development of the production infrastructure. The continuing, and in a number of instances growing, lag in development of the production infrastructure is becoming a brake on increasing the pace of economic growth.

The capacities of construction-installation organizations, the construction of new and renovation of existing construction industry and building materials industry enterprises, require corresponding development. We confront substantial increases in capacities to produce precast reinforced concrete, parts for prefabricated houses, metal components, claydite and agloporite, cabinetry, tile and insulation, walls and non-ore materials.

The oblast needs to finish shaping a unified network of year-around railways, strengthening its transport ties with the mainland, including possibly doubling the number of tracks, and substantially improving transport services between the Kuriles and the northern regions of this oblast, creating the necessary throughput reserve. Finishing construction of the second line of the rail ferry, developing the existing seaport facilities and creating the necessary port systems on the Kuriles are fundamentally important to solving the freight-hauling problem. Renovation of the narrow-gage Okha-Nogliki line will increase the role of rail transport. The issue of building a railroad to develop the large new coal deposit in Ugle-gorskiy Rayon must be re-examined.

Road construction should be developed faster and the capacity of cable, radio-relay and satellite communications should be increased to ensure reliable, dependable communications between the oblast and other regions, and a complex of work needs to be done to strengthen the system of electric power transmission lines so as to bring more electric power to the northern regions of the oblast.

One characteristic feature of the Far Eastern natural zone is that it is visited by practically every type of calamity known. According to data from many years of observations, more than 100 cyclones sweep through Sakhalin and the Kuriles each year, generally accompanied by such dangerous hydrometeorological phenomena as hurricane winds, flash flooding and blizzards. More than 1,000 earthquakes registering 3 or higher are recorded here each year. Over the past 30 years, the oblast has been subjected to destructive tsunami seven times. It is now necessary to develop and implement special state measures coupled with the extensive use of international experience. In our view, this issue deserves study by the appropriate subdivisions of the Academy of Science so as to develop practical scientific recommendations which will permit maximum protection of workers and facilities from these disasters and which will ensure the more stable operation of the entire national economy.

Surveys have shown that, the status of fixed assets in the oblast's production branches is unsatisfactory. Due to the large amount of obsolete and obsolescent equipment, wear indicators are 60 percent of the actual service life of many types of equipment and technology in several branches of industry, which is generally two to three times the normatives; the proportion of manual labor is considerably higher than the average indicators in the same branches elsewhere in the national economy, and the return on capital continues to drop.

In many instances, specialized equipment is lacking, specifically for working coal deposits under geologically complex conditions. Special machine systems and technology are also required for lumbering in the mountainous conditions of the oblast, where the use of waterways and other transport routes is a possibility. Or take the problem of the promising off-shore deposits. One difficulty in utilizing these deposits in the Sea of Okhotsk and in the Bering, Chukotka and other northern seas where this work has to be done arises from the tremendous push of large sheets of ice. The basin of northeastern Sakhalin has already become a unique testing ground for developing technology and techniques for prospecting for and producing oil and gas.

It is for precisely this reason that the ministries and departments concerned must be more consistent in resolving issues of regional scientific-technical policy and must give special consideration to the tasks of widely introducing equipment and technologies adapted to conditions in Sakhalin Oblast at enterprises subordinate to them; also, the scientific research organizations of the USSR Academy of Sciences system must ensure purposeful state scientific research to constantly improve special techniques and develop fundamentally new types of high-efficiency machines. The latter are especially important in view of the (1.6- to 1.7-fold) higher expenditures on wages at oblast enterprises: each worker in material production thus freed for other work would result in a savings to the state of 1,700 rubles per year.



We think it necessary that the issue of creating (within the constraints of economic expediency, of course) technically well-equipped nontraditional oblast enterprises oriented towards the requirements of the Far Eastern region and export requirements, with minimal specific materials-intensiveness, be re-examined. Carrying out this proposal will permit resolving the issue of improving the comprehensiveness and balance of national economic production forces development and increasing the pace of economic growth simultaneously with overall improvement in the technical level of the economy. More attention should be paid to using potential opportunities in the area of developing the country's foreign economic ties. It already has adequate export opportunities and resources and appreciably impacts the shaping of long-term, stable foreign economic ties between the Far East and foreign countries. Oblast enterprises are supplying the foreign market with petroleum, coal, lumber and timber, cellulose, paper, furs and seafoods under contracts concluded between Soviet foreign trade organizations and companies abroad. Coastal trade is being developed quite intensively.

The products of Sakhalin enterprises are well-known in the socialist countries. India and Thailand are major importers of newsprint. Many varieties of fish and seafood are in demand in the foreign market. There are opportunities for mutually advantageous economic cooperation with the Socialist Republic of Vietnam in terms of deliveries of nontraditional types of food and manufactured consumer goods and importing hot-climate fruits and vegetables, individual types of household and cultural goods and handicrafts from Vietnam enterprises the year around, as well as for making maximum use of the recreational opportunities of the republic for rest and recuperation for Far Easterners.

The oblast has taken a series of steps aimed at strengthening its own food base in every way possible, meeting the demand for potatoes, cabbage, tubers and greens in full through local production. The proportion of meat products obtained at local agricultural enterprises has increased from 26 to 40 percent over the last two five-year periods, the proportion of dairy products has increased from 36 to 43 percent, and the size of the state subsidies for these products has been reduced.

At the same time, the achieved level of agro-industrial complex development by no means fully satisfies the rapidly growing demands of the populace for basic foodstuffs. When determining the prospects for developing the agro-industrial complex, consideration should be given to the necessity for considerable replacement and updating of the fixed assets available in its branches, to carrying out an extensive complex of reclamation measures and a broad program of social development, to strengthening the material base of water management and rural construction organizations. Particular attention should be paid to eliminating the lag, permitted in preceding years, in developing food, meat and dairy industries and procurement enterprises, which lag

accompanied the development of all branches comprising the oblast agrarian-industrial complex. Continued development of the production of consumer goods in the nonfood group at oblast enterprises is of not inconsiderable importance to raising the standard of living of its workers.

A number of steps have been taken in recent years to develop the nonproduction sphere. About three million square meters of modern housing was built in 1976-1985, which is a third of the oblast's available housing today, and many municipal services, educational, public health and other facilities were also built. However, the oblast continues to lag seriously behind the central regions of the country in a majority of the indicators of social infrastructure development. The conclusion drawn by M.S. Gorbachev in his Vladivostok speech, that "if a turn towards social issues is vitally necessary for the country as a whole, it is twice or three times as important for the Far East," ("Perestroika neotlozhno, ona kasayetsya vseh i vo ysem" [Restructuring Is Urgent and Concerns Everything and Everyone], Politizdat, Moscow, 1986, p 15), is extremely pertinent to Sakhalin Oblast. The ministries and departments should significantly increase the capital investment being directed into strengthening the material-technical base of housing and civil construction in this region. In particular, they should examine issues of developing local rest and recuperation centers for the workers, of creating a modern tourism industry which will permit improving public health and ensure drawing additional funds into the national economy.

An analysis of the system which has evolved to help attract and secure workers testifies to the fact that the wage supplements, incentive bonuses and benefits in no way compensate for the higher cost of material support, in which connection the real incomes of the populace turn out to be lower than in other regions of the country. This is especially evident to people when they first move to the oblast, which is a primary reason for the outflux. Branch differentiation of the rayon wage coefficient also does not help secure personnel. The territorial coefficients and time-in-service wage supplements for Siberia, the Far East and several other regions which have been instituted recently have not been extended to Sakhalin Oblast.

With a view towards equalizing the real incomes of oblast residents (a higher level is desired), it is necessary to increase their monetary incomes in the appropriate proportions, which must be achieved both by using the system of regional coefficients and wage supplements for work in the Far North and equivalent regions and by establishing a number of benefits. And this should be done in the 12th and 13th five-year plans.

Taking the specific conditions under which the nationalities of the North live into account is an important social issue. In our view, when mastering regions in which the main inhabitants are the peoples of the North,

we need to develop, as part of the economic and social development plans, special planned programs to raise the economic and cultural standards of living of the indigenous populace of these territories, anticipating in those programs, along with branches of production specialization, the comprehensive development of traditional branches of employment for this populace, handicrafts and agricultural production.

Ecological issues demand increasing attention. In this connection, substantiated methods must be developed for predicting and evaluating the interaction of the environment and economic complexes of various types. A broad complex of measures must be implemented to introduce low-waste and, where possible waste-free, technological processes.

I should like to touch on the issue of scientific support for economic decisions. Very effective studies are being done at the USSR AN DVNTs Institute of Maritime Geology and Geophysics in an effort to determine the

distribution patterns of minerals, to comprehensively study the nature of and opportunities for predicting such natural disasters characteristic of the region as earthquakes, tsunami, volcanism, and so on. Important research is being done by the Sakhalin branches of the Pacific Ocean Scientific Research Institute of Fisheries, the Far Eastern Scientific Research Institute of Agriculture, and a number of other organizations. At the same time, the lack of academy and scientific branch subdivisions in the oblast is entirely unjustified.

We think it necessary that the issue of creating a branch of the AN SSSR DVNTs Economic Research Institute and broadening research on socioeconomic issues in existing scientific research organizations be resolved as quickly as possible.

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## AGRO-ECONOMICS, POLICY, ORGANIZATION

### Deputy Minister on APK Cost Accounting, Self-Financing

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Jul 87 pp 3-12

[Article by V. N. Semenov, USSR deputy finance minister, chief of the Main Administration of APK Financing: "Crucial Problems of Cost Accounting [khozraschet] and Self-Financing of the APK"]

[Text] It says in the political report from the CPSU Central Committee to the 27th Party Congress: "It is impossible to solve new problems in the economy without a profound restructuring of the economic mechanism and the creation of an integrated, effective and flexible system of management that makes it possible to realize the possibilities of socialism more fully." (1) A large role in this important matter is played by the work based on complete cost accounting and self-financing. In this connection, the enterprises and organizations are being given greater rights in the area of production and sales of products, a changeover is being carried out from the distribution of material and technical means to wholesale trade in them, and the interest and responsibility of collectives for the final results are increasing. The new management method is based on normatives in the interrelations between enterprises and the budget.

The work under the conditions of complete cost accounting and self-financing requires clear-cut ideas about the nature of the activity of the socialist enterprise, about relations between the state and the enterprise, and the collective and the enterprise, and further theoretical and practical developments concerning the form of socialist property. The draft law on the socialist enterprise (association) resolves the basic legal, economic, and social problems of enterprises and collectives. In addition to adopting such an important law, it is necessary to solve an entire complex of problems related to the activity of socialist enterprises under the conditions of commodity and monetary relations and planned management of the economy. It is necessary to arrange it so that economic categories—profit, price, finances, credit, wages—operate in the direction of increasing the effectiveness of the entire national economy, including the agroindustrial complex.

Each branch has its own specific nature of the effective value categories. And this must be taken into account in theory and practice. This pertains especially to agriculture, which is the central unit of the APK.

In agriculture it is extremely important to conduct the entire production process on the basis of complete cost accounting, self-financing, and self-support [samookupayemost]. Here as nowhere else it is expedient to take initiative and account for local peculiarities and climatic and natural conditions. Attempts at detailed guidance of

all agrotechnical devices and methods of conducting agricultural production on the kolkhozes and sovkhozes, ignoring local conditions, have not produced the earmarked results in the growth of crop growing and animal husbandry output. Such a centralized approach has led to establishing routine formulas in the management of agriculture and reducing the initiative of management workers and specialists in the development of production.

Under the conditions of commodity and monetary relations under socialism and the objective need for relative economic separation of enterprises, with the growing information, it is quite natural to transfer some of the functions performed by the state for production management directly to the enterprise. Assigning the enterprise certain functions in solving production and financial problems instilled in it economic interests in fulfilling and overfulfilling planning assignments which are materially and morally stimulated by the state. When the interests of the enterprise and the state coincide there is a unification of the subjective and the objective in the national economic plan, which determines the economic and social development of the society.

But in the national economic plan, especially in the future, it will be possible to determine proportions and rates of development only at the macro level. As concerns the microlevel, here no detailed indicators can directly determine the production throughout the entire list of products that are produced. Here, in addition to general indicators of the gross or sold products, physical indicators are used for the most important kinds of products.

Thus the system of indicators determining production development should also correspond to the objective need for management of production at the micro level. Independent production management at this level objectively requires commensurability of expenditures on the production of products and earnings from their sales, which is reflected in cost accounting. Cost accounting is not an episodic manifestation of the method of managing enterprises in a particular stage of socialist construction but a constantly developing and improving form of management of enterprises that is called upon to embody the unification of personal interests and the interests of the enterprises and the society.

When investigating the mechanism for cost accounting it is necessary to proceed from its basis. If the basis disappears, understandably, the action of cost accounting is halted. The activity of enterprises under the conditions of commodity and monetary relations is linked to the reimbursement for expenditures on the production of products.

V. I. Lenin, when developing questions of management of the national economy attached decisive significance to cost accounting. "Trusts and enterprises on cost accounting," wrote Lenin in 1922, "are based precisely so that

they themselves will be responsible and completely responsible for making sure their enterprises do not sustain losses." (2)

The strengthening of cost accounting on the sovkhozes has been combined with improvement of their financial and credit relations with the state, the granting to sovkhozes of greater rights in planning all of their production and financial activity, and increased material interest of the workers in the profitability of the farms. The sovkhozes have developed in parallel with small peasant farms, and then with kolkhozes.

Beginning in 1953 measures were implemented for strengthening the economies of the kolkhozes and sovkhozes. These were reflected in increased procurement and purchase prices for products sold by the kolkhozes to the states, advanced deductions from budgets for paying the wages of kolkhoz workers, and the abolition of state subsidies for sovkhozes. In connection with the transformation in 1958 of machine and tractor stations into repair and technical stations, all agricultural equipment of the machine and tractor stations were sold to the kolkhozes. For these purposes the kolkhozes were granted long-term credit which was subsequently written off from the majority of kolkhozes at the expense of the union budget. At the same time mandatory deliveries of products from the kolkhozes were abolished and new procurement prices were established.

The economic interrelations between the state and sovkhozes and kolkhozes are determined by the level of collectivization of their means of production and labor. This conditions the peculiarities in price setting and the organization of cost accounting, finances and credit on the sovkhozes and kolkhozes.

Each kolkhoz has been and is still in conditions of self-support. Through earnings from product sales, the kolkhoz not only makes reimbursement for expenditures on the production of products, but also provides for expanded reproduction. Yet the relatively low procurement prices and the achievement of expanded reproduction with their own funds have led to low wages for kolkhoz workers on the majority of kolkhozes. To this one must also add that legislatively it has been established that a large proportion of the gross income is used to augment the indivisible fund.

The decisions of the March (1965) Plenum of the CPSU Central Committee laid the basis for economic transformations in agriculture that were directed toward strengthening economic methods in the management of kolkhoz and sovkhoz production and increasing their interest in overfulfilling established plans for sales of products to the state. In the financial and credit interrelations of the kolkhozes and sovkhozes there have been changes that characterize principally new relations between agricultural enterprises and the state.

The most important measures for strengthening cost accounting in agriculture and changing over to economic methods of management were: the increase of procurement prices, guaranteed wages for kolkhoz workers, and the changeover of sovkhozes to complete cost accounting. These processes were discussed in detail in the press at one time. Therefore we shall give only the stages of their implementation.

In 1965 procurement prices were increased for grain and livestock. And unified procurement prices were established for kolkhozes and sovkhozes. In order to increase the production and sale of grain to the state, a 50-percent increment to procurement prices was introduced for above-plan sale of grain to the state, which was subsequently extended to other agricultural products as well. In 1981 these increments began to be paid for increasing output.

In keeping with the decisions of the May (1982) Plenum of the CPSU Central Committee, increments in an amount of up to 75 percent were added to procurement prices for agricultural products sold to the state by less profitable farms and those that operated at a loss. In order to establish the increments 9.8 billion rubles were allotted from the budget.

A large role in restoring the economies of the backward kolkhozes was undoubtedly played by budget financing in the construction of intrafarm roads and facilities for cultural and domestic purposes as well as their maintenance, and also insurance payments. Each year 3.3 billion rubles are allotted from the budget for these purposes.

Beginning 1967 there was a stage-by-stage changeover of sovkhozes to complete cost accounting. Here it was envisioned that they would provide for reimbursement for production expenditures, the achievement of further expanded reproduction (capital investments for production purposes, the formation of the basic herd, the increase in their own circulating capital and other expenditures), the creation of economic incentives funds and reserve funds, and also prompt return of bank credit from their own funds.

When the sovkhozes were changed over to the new conditions of management it was assumed that the change in production directions, the deeper specialization, and the construction of new enterprises could not be done through their own sources on many farms at the rates that would meet the needs of the national economy. Because of this the construction of new poultry farms, hothouse and greenery combines, complexes for producing animal husbandry products, and facilities for cultural and domestic purposes and residential buildings began to be carried out at the expense of the budget. The free residual profit of the sovkhozes was also used for these purposes. The acquisition of agricultural machinery and equipment, the financing of capital investments for

production purposes, expenditures on the formation of the basic herd, and the growth of their own circulating capital proceeded with their own funds and with bank credits.

The model of complete cost accounting that was presented was developed for highly profitable farms. It embodied elements of management on kolkhozes and in industry. This duality was manifested in the process of changing all sovkhoses over to these management conditions. Many negative aspects of this approach were revealed.

In the first place, budget financing of the construction on the sovkhoses of residential buildings and facilities for cultural and domestic purposes, and hothouse and nursery combines, poultry farms, and complexes for fattening hogs and cattle which were quick to pay for themselves led to the removal from the highly profitable farms of the free residual profits for other farms and reduced their interest in obtaining profit.

In the second place, the changeover of all sovkhoses to the new management conditions required a decision concerning reimbursement for indebtedness from bank loans obtained by less profitable sovkhoses for expansion of production.

	1965	1985	1985 in % of 1965
Number of kolkhozes, thousands	36.3	26.2	72.2
Number of sovkhoses, thousands	11.7	22.7	194.0
Gross output from kolkhozes and sovkhoses in comparable prices of 1973, billions of rubles	56.0	96.7	172.7
Payments to kolkhozes and sovkhoses for products sold, billions of rubles	28.7	115.1	401.0
Expenditures on wages on kolkhozes and sovkhoses, billions of rubles	18.3	47.4	259.0
Number of kolkhoz and sovkhov workers employed in agriculture, millions	26.0	22.7	87.3
Fixed capital on kolkhozes and sovkhoses, billions of rubles	63.4	366.9	578.7
Indebtedness on bank loans at the end of the year, billions of rubles	8.5	135.0	1588.2
Number of kolkhozes and sovkhoses operating at a loss, thousands	5.3	5.3	100.0

In order to provide wages and financing for the planned objects for capital investments at the corresponding level, procurement prices were consistently raised and increments were introduced for above-plan sale of products both for less profitable farms and those operating at a loss. In 1985, from the increase in procurement prices and increments to them carried out in keeping with the decisions of the May (1982) Plenum of the CPSU Central Committee, the kolkhozes and sovkhoses received an additional 65.5 billion rubles or 132 percent more than in 1965. These measures, although they played a certain role in strengthening the economy of

In the third place, when creating the economic incentive funds they did not solve such an important problem in the activity of the farm as the responsibility of the collective for the primary results of the activity. Practically all of the reform was reduced to the stimulating role of profit in the creation of the material incentive fund and the fund for social and cultural measures and housing construction. In 1985 on the sovkhoses the proportion of bonuses from the material incentive fund in the overall wage fund amounted to 8 percent.

Thus the economic reform on the sovkhoses did not affect the foundations of the activity of cost accounting enterprises that were developed at the beginning of the 1930's. It did not solve the main problem—it did not increase the farm's responsibility for the final results since the emphasis of the reform was placed on the material interest of the collective.

The direct bank credit for production expenditures of kolkhozes and the guaranteed wages of kolkhoz workers were undoubtedly a reflection of the development of productive forces in agriculture. But the introduction of guaranteed wages, in addition to the positive aspects, also had a negative side. For wages, regardless of the results of the farm's activity, transform kolkhoz workers essentially into hired workers. Agricultural workers lost their interest in increasing the final income of the kolkhoz. This led to a situation where many kolkhozes began to operate at a loss since the wages outstripped the rates of growth of output, which can be seen from the following data (see table).

agriculture, still did not eliminate the sharp differentiation in the incomes of the kolkhozes and sovkhoses.

In order to solve the problem of strengthening the economies of the less profitable farms, on a fairly large scale we transformed kolkhozes into sovkhoses and extended or wrote off the indebtedness of the kolkhozes for bank loans. During 1965-1986 more than 18 billion rubles' worth of unsecured bank loans were written off from the kolkhozes and sovkhoses at the expense of the state budget. As a result, the financial and credit system had less of an impact on improving the activity of

agricultural enterprises and a consumerist attitude toward bank loans was established.

If one adds to this the imperfection of the structure of management of the agroindustrial complex at the union and republic levels, it becomes clear why there were no significant changes in the economic mechanism of interrelations among kolkhozes, sovkhozes and service organizations and why they did not take advantage of all the existing reserves for increasing the production of agricultural products and increasing the profitability of the kolkhozes and sovkhozes.

Attaching a great deal of significance to the implementation of the modern party agrarian policy and the USSR Food Program, the CPSU Central Committee and the USSR Council of Ministers conducted an organizational restructuring of the management of the agroindustrial complex and earmarked large measures for creating an effective economic mechanism that was called upon to provide conditions for extensive application of economic methods in all subdivisions of the APK.

The union-republic agroindustrial committee was formed in November 1985. Concentrated in the USSR Gosagroprom were enterprises and organizations for producing, procuring (except for grain products), storing and processing agricultural products, and also agricultural enterprises. The USSR Gosagroprom is the central agency for state management of the country's APK and, along with the councils of ministers of the union republics, bears complete responsibility for the implementation of plans for the procurement of agricultural products and the provision of complete preservation, high-quality processing, and a significant expansion of the assortment of products.

The system that has been developed for control, planning and material and technical supply provides for the functioning of the APK as a unified whole. Here the plans for financing capital investments, forming the basic herd of productive and working cattle, and increasing the normatives for internal circulating capital, operational expenditures and other expenditures should be submitted to the oblasts and rayons as a whole, without subdivisions for the individual branches. The transfer to the direct jurisdiction of the RAPO of the kolkhozes, sovkhozes, and service, processing and construction organizations makes this management agency a truly unified master on the land.

The new edition of the party program adopted by the 27th CPSU Congress points out that "acceleration of the country's socioeconomic development requires constant improvement of the management of the national economy and reliable and effective functioning of the economic mechanism, which includes diverse and flexible forms and methods of management, and this requires that they correspond to the changing conditions of economic development and the nature of the tasks that are being carried out." (3)

In connection with the tasks set forth by the 27th Congress for increasing the effectiveness of public production and in order to provide for efficient economically intercoordinated work of all units of the APK, the CPSU Central Committee and the USSR Council of Ministers on 20 March 1986 adopted the decree, "On Further Improvement of the Economic Mechanism for Management in the Country's Agroindustrial Complex," which envisions measures for expanded initiative and increased independence and responsibility of the kolkhozes and sovkhozes for the results of their activity. In keeping with the decree, a changeover was carried out to the normative method of determining the volumes of production and procurements of agricultural products, and also deliveries of material and technical resources. For the 12th Five-Year Plan it established a plan for grain procurements that is stable for the various years. For other kinds of products the union republics and oblasts were given only five-year plans for their deliveries to the unionwide and public supplies which were approved for the various years.

For the 12th Five-Year Plan they have extended the payment to the farms of a 50-percent increment to procurement prices for sale to the state of the basic kinds of agricultural products in excess of the level achieved under the 11th Five-Year Plan. For grain this increment is paid in the amount of 100 percent of the procurement price under the condition that state plans for its procurement are fulfilled. They have also extended the payment of increments to the procurement prices for agricultural products sold to the state by less profitable kolkhozes and sovkhozes and those that are operating at a loss or working under the worst natural and climatic conditions. Here changes must be made in the list of farms that receive increments, depending on the profitability of production and their economic and financial condition based on the amount of allocations for the payment of these increments envisioned in the republic budget.

Increments to procurement prices for agricultural products sold to the state by less profitable kolkhozes and sovkhozes and those operating at a loss have practically become subsidies to make up for nonproductive expenditures and losses. These increments are received by more than two-thirds of all the kolkhozes and sovkhozes. In Penza Oblast increments are received by 93 percent of all the farms. The board of the USSR Ministry of Finance has pointed out to the oblast financial administration the slowness in the restructuring of the economic and control work under the new conditions and the unprincipled approach to organizing control over the expenditure of state funds that are allotted for establishing increments to procurement prices, and it made it incumbent on the financial agencies to concentrate attention on the most important issues related to acceleration of the rates of the socioeconomic development of the agroindustrial complex, the reduction of nonproductive losses and expenditures, and the discovery of additional incomes.

The Gosagroprom of the union republics have now created a fund for rendering assistance to individual farms that are operating under especially difficult conditions. Up to 10 percent of the allocations intended for increments to procurement prices for agricultural products sold to the state by less profitable farms are deposited into this fund. In order to create a fund for rendering assistance they correspondingly reduce the concrete amounts of increments for agricultural products paid to the kolkhozes and sovkhozes. Here they take into account the volume of procurements envisioned for the republics, oblasts and farms for 1986. The fund should not be used to cover losses formed from mismanagement or negligent work.

Radical changes have also been made in the planning of the wage fund and the material incentive fund for workers of the RAPO's and oblast agroindustrial complexes and in the financing and credit for enterprises and organizations of the APK. The basic changes in the economic mechanism consist in strengthening the effectiveness of cost accounting and expanding the operational and economic independence of enterprises both in solving production problems and utilizing financial resources, and in increasing their responsibility for the final results of their work.

Beginning in 1987 the wage fund has been formed by the sovkhozes according to stable normatives per 100 rubles of sold or gross agricultural products. For products produced in excess of the level from which the normative is established and for each percentage point of increase in product sales, bank institutions allot additional funds for wages according to the coefficient of 0.8 percent of the wage fund planned according to stable normatives. For individual sovkhozes this coefficient is differentiated, taking into account the specialization of the farms. The normative envision that labor productivity will increase more rapidly than the wage fund does. The fact is that the normative has been established as constant on the basis of the plan for sold or gross output for 1987, and for farms located in the zone of unstable farming—from indicators for the three preceding years.

Thus a cost-cutting mechanism has been created in the utilization of the wage fund as well as interest in its economical utilization with better forms of organization of labor and material incentives for state enterprises.

The wages of management workers and specialists are now more closely connected to the results of the activity of the sovkhozes—advanced payments are made in the amount of 80 percent of the salaries and the final accounts are settled on the basis of the fulfillment of the plan for sales (production) of products. Bonuses for this category of workers are given according to three indicators: a) for increasing product sales; b) for profitability; c) for increasing profitability. The funds intended for bonuses for management workers and specialists of kolkhozes and sovkhozes for the production and sale of individual kinds of products (sugar beets, oil-bearing

crops) that are paid by procurement and processing enterprises are calculated into the material incentive fund and are used by decision of the labor collectives for awarding bonuses to workers, specialists and management personnel.

The brigades, farms, and other subdivisions of sovkhozes have greater material interest and responsibility for economizing on direct expenditures—70 percent of the savings are now used for bonuses for the collective, and overexpenditures are made up for with funds intended for wages and bonuses for workers of the subdivision.

But, as report figures and materials from inspections show, on the majority of the farms they do not use the established policy for making up for overexpenditures. Therefore it is necessary to establish effective control over the correctness of the application of the policy for awarding bonuses to workers of sovkhozes and to increase their responsibility for the final results of the activity of the brigades, farms, divisions and agricultural enterprises as a whole.

The savings on the wage fund are deposited in equal proportions into the material incentive fund and the reserve fund of the farm, and the overexpenditure is made up for from these same funds. If these funds are not sufficient, the bonus calculated for the farm collective is reduced by the amount of the overexpenditure. When the average wages increase more rapidly than labor productivity does, the amount of this difference is reserved from the material incentive fund to be used the following year for stimulating an increase in labor productivity and increasing the effectiveness of production. In individual cases this difference can be reflected in the amounts of the funds for social and cultural measures for the sovkhoz.

Wages of management workers and specialists of the RAPO and the oblast agroindustrial committees are also made dependent to a certain degree on the final results of the work of the enterprises and organizations under their jurisdiction. Before settling accounts for products they are paid an advance of 90 percent of their monthly salaries.

The financial and credit mechanism at enterprises and organizations of the APK is directed primarily toward their self-financing and self-support, that is, reimbursement for expenditures on expanded reproduction from their own sources. The kolkhozes and sovkhozes carry out expanded reproduction and conduct construction of facilities for nonproduction purposes, as a rule, with their own funds and bank credit. Budget allocations are allotted to agricultural enterprises mainly for expenditures for further development of the material and technical base, for increasing the production of agricultural products, and for solving social problems. The amounts of these for the various years of the 12th Five-Year Plan will be determined on the basis of the 1986 plan, taking

into account the growth of the gross output, the volumes of capital investments for the corresponding year, and the increase in the proportion of internal funds for the development of production. For 1987 budget allocations comprise 36.7 percent of the expenditures for expansion of the production of sovkhozes. As profitability increases the proportion of budget allocations will decrease and all the kolkhozes and sovkhozes will change over to complete self-support.

The RAPO's are granted extensive rights in the utilization of budget allocations for the development of sovkhozes and other agricultural enterprises, solving the problems that are dictated by the need to increase the production of products, and solving problems of retaining personnel in rural areas, that is, without regulation of less profitable and highly profitable farms, construction objects, the acquisition of technical equipment, the establishment of perennial plantings, and other expenditures. Agroindustrial committees and associations can take more extensive advantage of the rights granted to them to change the amounts of allocations from the budget and payments into the budget when this is made necessary by changes in production conditions.

Very important for expanding the economic independence of sovkhozes and other state agricultural enterprises is their being granted the right to utilize for financing planned measures all the free financial resources at their disposal, regardless of the sources from which they are formed. Thus sovkhozes can use profit, amortization deductions, and funds from culling livestock for those measures which bring about a need for sources of financing throughout the course of the year. All farm funds and budget allocations will be in circulation, regardless of their purpose, and a temporary need for credit can arise only when all the funds in circulation are inadequate. But these funds should be accounted for in terms of their utilization for the various areas.

Beginning in 1987 sovkhozes and other state agricultural enterprises and organizations will make payments into the budget from profit, and the kolkhozes will pay income tax at stable normatives for the various years of the five-year plan which are established taking into account the economic evaluation of the land and the provision of fixed capital and labor resources in a monetary sum, that is, the production potential.

This policy for interrelations for payments causes a significant redistribution among the farms of profit and net income as well as monetary funds coming into the state fund. The kolkhozes and sovkhozes with high production potential will sharply increase payments into the budgets and those with low potential will reduce them, regardless of the profitability or amount of profit that is obtained. Here, naturally, the income tax for kolkhozes from the wage fund is obtained. In 1985 the kolkhozes and sovkhozes made payments into the budget from profit (net income) in the amount of 0.9 billion rubles and the kolkhozes, from the wage fund of kolkhoz

workers—0.9 billion rubles. Apparently it is necessary to establish a unified policy for paying income tax by kolkhoz members, both workers and employees.

In order to develop interfarm enterprises for producing, processing and storing agricultural products and for the immediate needs of production, a centralized reserve fund has been created which has in practice combined deductions into the reserve funds that were previously made by the sovkhozes and also funds withheld by the higher organizations in distribution. Deductions into this fund will amount to 4 billion rubles a year.

Centralized reserve funds have been created in the rayon agroindustrial association, the agroindustrial committees of the oblast and the gosagroproms of the union and autonomous republics, and also in the USSR Gosagroprom from deductions made by sovkhozes and other state enterprises and organizations.

A proportion of the deposits into the centralized funds of the APK agencies is made by the gosagroproms of the union republics and the oblast agroindustrial committees on the basis of the need to carry out expanded reproduction, taking into account the budget allocations for the various oblasts, rayons, and individual farms.

In order to create stable financial conditions for normal activity of the kolkhozes and sovkhozes that have suffered from natural disasters or unfavorable weather conditions, beginning in 1986 the level of insurance reimbursement was increased from 50 to 60 percent of the value of the agricultural crops that were not harvested.

Improvement of the management mechanism in the APK requires purposive work on the part of financial agencies and bank institutions for increasing the financial and credit impact on the profitability of production and reducing nonproductive losses and expenditures. The restructuring in economic work should consist in unwavering implementation of the fundamental documents that regulate the interrelations between enterprises and the state, the granting of extensive economic independence to units of the APK, and the increase of their responsibility for the final results of their activity.

A cost-accounting enterprise is a corporate body that independently disposes of means of production that are allotted for fulfilling assignments for producing products or rendering services. Here independence in disposing of means of production is exercised in the area of planning, labor, finances, and credit. The state legislatively determines the limits and norms for the utilization of production funds with which the activity of the enterprise is carried out. The enterprises have been granted extensive rights in maneuvering means of production and monetary resources. For example, sovkhozes and other agricultural enterprises and organizations, after making payments into the budget and paying interest on bank loans, distribute profit at their own discretion using it for



paying off bank credit, developing production and other planned measures, for forming the economic incentive fund or the reserve fund of the farm, or for depositing money into centralized reserve funds.

The distribution of profit on the sovkhozes is limited only by deductions into the material incentive fund (17 percent of the wage fund) and social and cultural measures (50 percent of the material incentive funds), and also into the centralized reserve fund. Here the fund for social and cultural measures is used only for social and cultural purposes and rendering assistance to farm workers. Expansion of production and also housing construction are carried out only with profit from the farm and, taking into account the farm's economic condition, money from the centralized reserve fund and budget allocations can also be used for these purposes by decision of the higher organization.

In 1987 the sovkhozes must use 11.2 billion rubles in profit (calculated) for the following measures: payments into the budget—6 percent, repayment of bank loans—17 percent, payment of interest on bank loans—6 percent, funds for material incentives and social and cultural measures—20 percent, expanded production and the reserve fund—40 percent, and others—11 percent.

Granting the sovkhozes the right to independently distribute profit for the development of production and material incentives requires putting into effect the entire financial and credit mechanism so that the farm will provide for expansion of production at the given rates. The creation of increased consumption funds by certain sovkhozes contradicts the principle of the operation of the farm on self-financing and self-support and indicates shortcomings in the existing management mechanism.

Accounts with the budget have been considerably simplified with respect to payments and allocations and the formation of economic incentive funds for cooperative-state and state-cooperative construction organizations. Beginning in 1987 these organizations will make payments to the budget under the same policy as the sovkhozes do from profit in the kolkhozes from net income, that is, according to normatives that take into account their production potential (the availability of fixed capital and labor resources).

Sovkhozes, processing enterprises and organizations, and other enterprises and organizations of the APK system when they are looking for internal funds and material resources are granted the right to carry out construction and acquire machines in excess of the limits of state capital investments, which expands their operational economic activity in the reproduction and utilization of financial resources.

The new mechanism for management in the APK places qualitatively new requirements on the control and economic work of financial agencies. Improvement of control and economic work should proceed along the path of

strengthening financial methods of influencing the increase in profitability of production and reducing nonproductive losses and expenditures. In the event of inefficient or incorrect utilization of budget allocations it is possible to cut the financing for enterprises and organizations with the knowledge of the higher organizations. Proposals concerning the results of inspections and examinations of financial and economic activities should be carried out locally and oriented toward increasing the profitability of production and reducing nonproductive losses and expenditures. The work of financial agencies should be directed toward prompt financing of all measures for the agroindustrial complex and complete deposit into the budget of turnover tax and payments from profit.

In order to simplify and establish a unified policy for finding financing for state capital investments, beginning in the second quarter of 1986, enterprises and organizations of the APK in their calculations (plan for financing state capital investments) show only the budget allocations. Enterprises and organizations of the APK submit to the immediate financing institution of the bank the plans for financing state capital investments with an indication of all of their own sources, budget allocations and limited credit. But the policy for financing increases the responsibility of the higher agencies of the enterprises and organizations for providing the necessary sources for the quota of capital investments.

Now the allocations for the gosagroproms of the union republics, the oblast committees and the RAPO's are disclosed on the whole without breakdowns for the individual branches and items of the budget classification. The RAPO's transfer allocations to the enterprises and organizations under their jurisdiction and keep accounts in terms of the various branches and items of expenditures. As a result, the number of documents has increased sharply.

In connection with the work of the enterprises and organizations under the conditions of complete cost accounting, self-financing and self-support, it is necessary to radically revise the mechanism for budget financing. The source of reproduction should be the earnings from the sale of products and the rendering of services. Therefore it is necessary to construct economically substantiated prices for agricultural products and industrial products sold to the kolkhozes and sovkhozes, and to abolish the reimbursement for the differences in prices for goods from industrial production and budget financing of capital investments and the maintenance of water management organizations, technical crop work, and insurance payments.

It will be necessary to do a large amount of work for unifying payments into the budget and distributing profit from processing enterprises and transportation, procurement, trade and supply organizations, and changing all these enterprises and organizations over to self-financing. Deposits of payments into local budgets

and financing of enterprises and organizations from local budgets will increase the responsibility of Soviet agencies and agroindustrial associations for successful and profitable operation of kolkhozes, sovkhozes and other enterprises and organizations of the APK.

The changeover of all enterprises and organizations of the APK to authentic complete cost accounting and self-financing requires increasing the responsibility of the collective for the final results of its work. This makes it necessary to organize labor everywhere on the principle of the collective contract, to introduce the check form of control over expenditures, and to reduce postponements and writeoffs of indebtedness for unsecured bank loans.

A weighty contribution to solving the problem of increasing the effectiveness of public production, which was set by the 27th CPSU Congress, should be made by financial agencies, utilizing for these purposes both financial levers and direct assistance in solving methodological and operational problems of budget financing, payments into the budget, price setting and the organization of intrabusiness cost accounting.

#### Footnotes

1. Materials of the 27th Congress of the Communist Party of the Soviet Union, Moscow, Politizdat, 1986, p 33.
2. Lenin, V. I., "Poln. Sobr. Soch." [Complete Collected Works], Vol 54, p 150.
3. Materials of the 27th Congress of the Communist Party of the Soviet Union, p 147.

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#### New Journals Announced, Contents Described

**APK: EKONOMIKA, UPRAVLENIYE**  
18240004 Moscow *EKONOMIKA SELSKOGO KHOZYAYSTVA* in Russian No 8, Aug 87 p 96

[Unattributed item: "Subscribe To the Journal *APK: EKONOMIKA, UPRAVLENIYE*"]

[Text] Commencing in 1988, based upon the journal *Agricultural Economics*, the monthly theoretical and scientific-practical journal *APK: Ekonomika, Upravleniye* [APK: Economics, Management] is being created.

The journal has been developed for workers attached to administrative organs, the leaders of farms and enterprises, workers attached to scientific-research institutes and for teachers at VUZ's and technical schools of an agro-industrial profile.

Its purpose: to promote the development of Marxist-Leninist agrarian economic theory, to publicize the principal trends in the agrarian policies of the CPSU and to summarize the experience in implementing it: to furnish methodological assistance to farm and enterprise leaders and to the administrative apparatus of the APK [agro-industrial complex] in searching for and utilizing reserves for raising production efficiency and the quality of work.

The vital questions of a theoretical and scientific-practical nature, as drawn from the materials of the 27th CPSU Congress, will be reviewed in the sections entitled "Decisions of the 27th CPSU Congress In Action," "APK Administrative Problems," "Problems Concerned With Accelerating Scientific-Technical Progress," "Labor Resources and Labor Productivity," "Socio-Psychological Aspects of Administration," "Social Problems Associated With Rural Area Development," "Work of Agroproms" and others.

A series of training-methodological materials prepared in conformity with a training plan and instructional program will be published for students in the economics educational system. The problems concerned with the agricultural development of fraternal socialist countries will be reviewed on an extensive scale and there will be sections devoted to criticism and bibliography, scientific life, social materials, responses to letters sent in by readers and so forth.

The plans call for a discussion of a number of vital questions during sessions of a "business club" and at "roundtable" meetings.

With no change taking place in the nominal cost for one issue of the journal, its volume will increase from 10.5 to 12.4 publisher's record sheets.

A subscription will become effective commencing with the announcement of the 1986 subscription campaign in all communications departments, by the public distributors of the press in work, training and residential areas.

The index for the journal is 70013.

The cost of an annual subscription is 8 rubles and 40 kopecks and for a six months subscription — 4 rubles and 20 kopecks.

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#### **KHLEBOPRODUKTY and Supplement**

18240004 Moscow *ZAKUPKI SELSKOKHOZYAYSTVENNYKH PRODUKTOV* in Russian No 8, Aug 87 p 64

[Unattributed item: "For the Attention of Readers!"]

[Text] Commencing 1 January 1988, a new journal will enter into publication: *Khleboprodukty* and a "mixed feed industry" supplement to it. It will include themes

from the journals *Zakupki Selskokhozyaystvennykh Produktov* [Purchases of Agricultural Products], *Mukomolno-Elevatornaya I Kombikormovaya Promyshlennost* [Milling-Elevator and Mixed Feed Industry] and *Khlebopekarnaya I Konditerskaya Promyshlennost* [Baking and Confectionery Industry], the publication of which has been terminated.

The monthly theoretical and scientific-practical journal *Khleboprodukty* of the USSR Ministry of Grain Products and USSR Gosagroprom [State Agro-Industrial Committee] will supply information on the theory and operational practice associated with procurements of grain, oil-bearing crops, seed, grass meal and hay and on all problems of the industrial branches of the elevator, milling, groats, baking, macaroni and confectionery industry.

In light of the decisions handed down during the 27th CPSU Congress and subsequent plenums of the CPSU Central Committee, materials will be published under the principal headings of the journal: "Socialist Competition for the Successful Carrying Out of the Tasks of the 12th Five-Year Plan," "Technical Progress," "Improvements in the Economic Mechanism," "Quality Control," "Production Economics and Organization," "Production Intensification" and others.

The journal will contain questions concerning development of the social sphere, labor protection and equipment safety, economic education and others.

Materials on leading production workers and their achievements will be published in the journal.

The plans call for the publishing of consultations, explanations, responses to readers' questions and reference and normative materials.

The journal was developed for specialists and leaders of grain products administrations, the baking industry, elevators, milling combines, baking, confectionery and macaroni enterprises, groats plants and other enterprises belonging to the grain products system and also NII's [scientific research institutes] concerned with the development of and improvements in the work of various branches and teachers and students of VUZ's of a given profile.

The price of an issue — 45 kopecks. The cost for an annual subscription — 5 rubles and 40 kopecks.

The journal's index in the catalog of newspapers and journals — 71070.

The production "Mixed Feed Industry" journal-supplement will furnish information on equipment, technologies, organization and the economics of mixed feed production at state and inter-farm enterprises, on raising

the quality of products, technical progress, the efficient use of raw materials, the socialist competition, the leading experience of labor collectives and others.

Consultations and also reports on new literature and other information materials will be published on the pages of the journal.

Six issues of the journal will be published annually. The cost for an annual subscription will be 3 rubles and the price for one issue — 50 kopecks. The journal's index in the catalog of newspapers and journals — 70435.

Subscriptions to the journal can be obtained from all of the departments and public distributors of the press.

The address of the Editorial Board: 101859 Moscow, K-451, Chistoprudnyy Boulevard, 12a

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### MOLOCHNAYA I MYASNAYA PROMYSHLENNOST

18240004 Moscow MOLOCHNAYA  
PROMYSHLENNOST in Russian No 8, Aug 87 p 48

[Unattributed item: "Information for Subscribers To and Readers of the Journal *Molochnaya Promyshlennost*"]

[Text] Commencing in January 1988, the monthly scientific-technical and production journal-supplements *Molochnaya Promyshlennost* and *Myasnaya Industriya SSSR* are being converted into the production journal-supplement to the *Zootekhniya* Journal, with the title *Molochnaya I Myasnaya Promyshlennost*. Six issues will be published each year.

Do not forget to subscribe to the production journal of the USSR State Agro-Industrial Committee *Molochnaya I Myasnaya Promyshlennost*.

The journal is intended for specialists and other workers of the meat and dairy industry of gosagroproms, associations and enterprises, planning and design organizations and scientific-research and training institutes and for the members of scientific-technical societies.

The journal will contain information on the problems concerned with developing the dairy and meat industry during this modern stage, the latest achievements in engineering and technology, it will summarize the leading operational experience of enterprise collectives and production innovators and it will publish discussion, critical-bibliographic and information materials.

The journal's index is 70547. The price for an annual subscription is 3 rubles and for one issue — 50 kopecks.

The journal will not appear in the retail trade, but rather it will be distributed on the basis of subscriptions. The subscriptions will be accepted without limitations by all municipal and rayon branches of Soyuzpechat [Main Administration for the Distribution of Publications], by the offices and branches of communications and also by authorized agents at enterprises and institutes.

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### Functions of First Belorussian Agrokombinat Discussed

18240005 Minsk SELSKOYE KHOZYAYSTVO  
BELORUSSII in Russian No 8, Aug 87 pp 9-11

[Interview with Nikolay Nikolayevich Kiselevich, general director of the Agroindustrial Combine "Zapadnyy Bug," by S. S. Protko; date and place not specified]

[Text] Many of our readers have asked the editors to tell about the experiment being conducted in Brestskiy Rayon. That is where the republic's first agroindustrial combine, "Zapadnyy Bug," has been created. What is it like? What does it do, and what are its tasks? Nikolay Nikolayevich Kiselevich, the combine's general director, answers these questions from our readers.

"The idea of creating an agroindustrial combine was not ours," N.N. Kiselevich said to start his story. "A combine of this kind, 'Kuban,' was created more than 2 years ago in Krasnodar Kray, and it immediately won recognition from those who raise crops and livestock. The Politburo of the CPSU Central Committee discussed the operation of the combine 'Kuban' at one of its sessions in the middle of last year and noted its favorable results. This provided the impetus for restructuring the mechanism for conducting economic activity in our rayon."

[Question] When was the Agroindustrial Combine "Zapadnyy Bug" created?

[Answer] Formally, in March of this year. The "Statute on the Agroindustrial Combine 'Zapadnyy Bug'" was adopted on 10 March. In actuality the combine has been in operation since the beginning of this year.

[Question] Nikolay Nikolayevich, tell us in a bit more detail what the combine's organizational structure is like.

[Answer] It embraces all 19 kolkhozes and sovkhoses as well as the enterprises and organizations located in our rayon that serve them, the meat and dairy combines, the canning plant, the bee nursery, the timber enterprise, the fishing enterprise, the distillery, the nonalcoholic beverages combine, and the branch of the institute "Agroproyekt"—in all, about 20 enterprises and organizations under various ministries and departments.

The kolkhozes, sovkhoses, and other enterprises and organizations making up the cooperative retain the independence of a juridical person in conducting their business.

The supreme body of management of the agroindustrial combine is the council, whose members are the general director (chairman of the council), his deputies, managers of the enterprises and organizations, and representatives of work collectives.

The council's members are elected by the authorized representatives of enterprises and organizations and are approved by the superior body. A presidium of the council is elected for the prompt handling of matters related to the combine's activity. An efficient management staff has also been created, headed by the general director. He is chosen and discharged by the council.

The Combine "Zapadnyy Bug" is directly subordinate to the BSSR State Agroindustrial Committee.

[Question] What is the combine's principal task?

[Answer] The main goal in organizing the combine was to create within the limits of an administrative rayon a production and economic complex embracing under a single management the production, procurement, processing, and sale of foodstuffs and one that would structure its activity on the basis of cost accounting (khozyaystvennyy raschet) and self-support.

[Question] But the rayon agriculture commission and the RAPO had exactly those functions.

[Answer] The RAPO was engaged in production and in part with procurements of agricultural products, while the combine will process and sell them. Now that production, processing, storage, transport, and sale of agricultural products have been concentrated in the same hands, within the system of the combine, everyone has a single reference point in conduct of economic activity—to work for the greatest general end result, to prepare high-quality products in a diverse assortment and good packaging. After all, our basic duty is to provide the necessary foodstuffs to the population of Brest and Brestskiy Rayon.

[Question] And why was your rayon the one chosen for conducting the experiment?

[Answer] In my view Brestskiy Rayon was chosen for organizing the first agroindustrial combine in the republic mainly because the level of agricultural production is fairly steady here. Considerable work has been done to deepen specialization and raise the level of concentration of production, and a high level of the material and technical base has been achieved. There are large enterprises in the rayon producing and processing agricultural products.

[Question] You have said that considerable work had been done to intensify specialization. Could you be more specific?

[Answer] Every farm has a firm target for production of a particular agricultural product and is financially accountable for its fulfillment. For instance, the Kolkhozes "Pogranichnik," "Iskra," "Rossiya," and the Sovkhoz "Brestskiy" are specialized in raising seed for grain crops. By the end of the 5-year planning period they are expected to provide a full supply of seed to all the combine's farms. This will make it possible to make the transition everywhere to intensive technology for raising grain crops and to raise their yield to 40 quintals or more per hectare planted. In the last year of the 5-year period the gross grain harvest will reach 84,500 tons, or 35,000 tons more than was produced in the last year of the 11th FYP. Some of the grain will be processed into mixed feeds. The Sovkhoz-Combine imeni Lenin has for that purpose planned to build a large mixed-feed plant with a capacity of 400-500 tons of special feeds per shift.

The Kolkhoz-Combine "Pamyat Iliche" is specializing in beef production. It has a complex for raising 10,000 head of young cattle. In 1986 it supplied the state more than 4,000 tons of beef. Future plans call for expanding the complex to 15,000 head being fattened, which will make it possible to produce as much as 6,000 tons of meat per year.

Pork is being supplied to the state by the Sovkhoz imeni Lenin, which has a complex for fattening 54,000 hogs per year. Construction of a selection-hybrid center is being completed on the same farm; every year it will supply the oblast's swine-raising farms more than 18,000 second-litter sows. By the end of the 5-year planning period pork production on the Sovkhoz imeni Lenin will reach 10,000 tons. Some of the meat will be supplied to the state by the industrial-type poultry farm "Mednovskaya" and the sheep-raising Kolkhoz "Omelino." Thus by the end of the present 5-year planning period meat production and sales will reach 20,000 tons—3,000 tons more than were sold to the state in 1985.

Milk production is increasing over the previous 5-year period because cow productivity has been raised by half. Gross milk production will reach 75,000 tons at a milking rate per cow of 4,000 kg.

Seven farms—the "Berestyë" Hothouse Combine and the Sovkhozes "Brestskiy," imeni T. Ya. Kiselev, "Molodaya Gvardiya," "Rassvet," "Znamya," and "Pribuzhye"—are specializing in the production of fruit and vegetables. They have 625 hectares planted to vegetables, including 9 hectares under glass. Last year their gross vegetable harvest was 15,000 tons. By the end of the 5-year period vegetable production will be brought up to 25,000 tons. The winter hothouses are being expanded by another 3 hectares.

The Sovkhoz "Rassvet" has large orchards. More than 1,000 hectares are planted in apple trees, pears, and berry patches. When all of its fruit plantings go into production, this farm will supply about 20,000 tons of fruit and berries to the population every year.

[Question] How will processing and storage of products be organized?

[Answer] In order to improve the quality of the products processed, to raise labor productivity, and to create waste-free production, we intend to build a shop for producing canned meat products with a capacity of 3,000 tons and also to equip processing lines for cutting, wrapping, and packing partially cooked foods, for rendering edible fat, and for processing bones.

All the combine's farms are engaged in milk production. The milk goes to the dairy combine. The combine's capacity is 730 tons of milk per day. This is not enough. That is why over the next 2 or 3 years we plan to activate a shop for producing 3,000 tons of reconstituted milk per year. The kolkhozes and sovkhozes have a great need for this kind of milk.

The ice cream and soft cheese shops are now undergoing reconstruction. By next year the production of soft cheese will increase from 0.8 to 2 tons per shift and that of ice cream from 2.9 to 6 tons. We are going to replace the equipment on the production lines for filling milk cartons and packaging butter. This will double the shop's productivity. The dairy-product souffle "Alesya" and the paste "Brestskaya" have already begun to be produced from the waste in milk processing. There is a good public demand for these new dairy products.

We are making the transition entirely to centralized transport of milk and livestock from kolkhozes and sovkhozes. Our plans also include reconstruction of refrigerators at these combines. A large amount of work needs to be done to build storage facilities for fruit, vegetables, and potatoes. Construction of a 4,000-ton vegetable storage facility has already begun. Another four storage facilities for vegetables and potatoes with a capacity of 1,000 tons each are being built. The documentation has been prepared for building a 2,000-ton fruit storage facility and two storage facilities for drupes and berries each with a capacity of 1,000 tons on the Kolkhoz "Rassvet." The task has been set of having storage facilities to handle 16,000 tons of fruit and 15,000 tons of vegetables and potatoes by the end of the 13th FYP. Then everything grown in the fields will be stored reliably. Now the losses of vegetables, fruit, and potatoes run to 30 percent or more. Those are losses running into the millions of rubles. But the main thing is that after we have built this network of storage facilities, we will be able to supply the growing population of the oblast center and rayon with fruit, vegetables, and potatoes year round.

[Question] Nikolay Nikolayevich, these are all plans for the future. But what is being done today to carry them out? Can we talk about the first results of economic activity in the new way?

[Answer] Yes, although some time has also been lost. After all, any reorganization causes a disruption in the management mechanism, and that means a temporary deterioration of economic indicators. Fortunately, this was not so appreciable on the farms of our rayon; on the contrary, from the very first days of the combine's activity all the problems that arose have been solved promptly and in an organized way.

Let us just take an example. Because of poor preparation of equipment the Kolkhoz "Zarya" and the Sovkhoz "Molodaya Gvardiya" were late in beginning field operations. There was a real threat of missing the best time for the spring planting. The combine's council decided to provide those farms emergency assistance. Workers and specialists were sent there from the enterprises, and literally in a matter of days they helped to complete the repairs and get the equipment ready. Thanks to this kind of mutual emergency assistance and the well-organized work on the farms themselves the spring planting was done in the rayon at the best time in agrotechnical terms. Moreover, 90 out of every 100 hectares of grain crops were sown and cultivated according to the intensive technology. The prospects for the harvest are good everywhere. We now hope to add at least 5-6 quintals to last year's yield and to harvest 32-33 quintals of grain from every hectare planted.

Nor are things going poorly in animal husbandry. In 6 months of this year gross milk production has been raised 3,200 tons and meat production 2,100 tons. Milk and meat production per 100 hectares of farmland was 500 and 149 quintals, which is 47 and 29 quintals higher than last year's level, respectively. Milk production per dairy cow on ration was 1,790 kg, which is also 179 kg more than over the same period last year.

Individual farms have achieved still higher indicators. For example, on the Sovkhoz imeni T.Ya. Kiselev more than 2,200 kg of milk were produced per dairy cow, which is 300 kg higher than the level achieved in the 1st half of last year.

The Sovkhoz "Brestskiy," the Kolkhoz "Iskra," and certain others have achieved a noticeable addition to milk production per dairy cow. In the rayon as a whole the daily weight gain of young animals is 101 grams higher than last year. In the complex of Kolkhoz-Combine "Pamyat Ilich'a" the young bulls being fattened had a weight gain of more than 800 grams per day, and the pigs being fattened in the swine-raising complex of the Sovkhoz imeni Lenin gained 500-600 grams.

All of this instills confidence that the high socialist obligations assumed for the current year will be discharged successfully. But we are gratified more than

anything else by people's attitude toward the restructuring that is being carried out. Here is an example. Previously entire delegations visited neighboring rayons, oblasts, and even republics to study progressive know-how. They went, they looked, they came back, and they forgot. Now the farm's managers and specialists must report on every such trip: what they saw and what they are applying of what they saw. This has meant a sharp increase in the responsibility of the managers at all levels and titles for application of the advances of science and progressive practice to agricultural production.

Intrafarm relations based on mutual economic motivation between the management and the collectives of brigades have been worked out on the Sovkhoz "Brestskiy," following the example of the Kolkhoz "Za Mir" in LiSSR, and they are operating smoothly. They have followed the example of their Lithuanian counterparts and have begun to put order in the organizational structure of production. Three brigades have been created instead of the previous five. Every cost-accounting collective engaged in tractor work and field cultivation has been assigned land, equipment, and the necessary supplies for production activity. New wage rates and salaries have been introduced, unit prices have been worked out, and planned and computed prices of products have been established. Remuneration of everyone who works on the farm has been made dependent upon end results.

It is still early to draw final conclusions concerning the effectiveness of the innovation. But we already have the first results. A sizable amount of resources are being saved by reducing administrative personnel in brigades conducting field operations. Machine operators have begun to take care of their equipment. As a matter of fact, it turns out that the farm has a great deal of excessive equipment. When the cost-accounting subdivisions were set up, the machine operators took only those machines and machinery they could not do without in their work. It had become disadvantageous for them to pile up a great deal of equipment, as had previously been the case.

[Question] And this has not had an effect on the progress of field operations?

[Answer] On the contrary. The planting on the Sovkhoz "Brestskiy" this spring was done in a more organized way and to a higher standard of quality. Moreover, all the technological operations that help in obtaining a higher yield are being carried out unswervingly. The crops are being given exemplary care. Work discipline in the collective has become firmer.

Now all the farms in the combine are making the transition to self-support and self-financing, following the example of the Sovkhoz "Brestskiy." The check system is being introduced everywhere, making it possible to handle expenditures speedily, to discover untapped potential in production, and to prevent unwise

expenditure of labor and financial resources. But the main thing is that introduction of this form has made every one of the managers of the cost-accounting subdivisions a kind of housekeeper who has a ceiling on his expenditures and a checkbook.

Introduction of the family contract has been helpful here as well. The herders Konstantin Gerasimovich and Natalya Yevgenyevna Staroverov, for example, work on the Sovkhoz imeni T.Ya. Kiselev. They tend 190 head of cattle. And although their working conditions are not as good as on an industrial-type complex, their results are excellent. The average daily weight gain of the animals is 950-965 grams, and the production cost per quintal of weight gain does not exceed 140 rubles. That is why each of them has an average monthly earnings of more than 400 rubles.

At present there are 12 families working on the contract method in the livestock-raising branch. They are attending 1,440 animals. The married couple Aleksandr Ivanovich and Yelena Yemelyanovna Solodukh raise heifers on the Kolkhoz "Pogranichnik." The average daily weight gain of animals in their group exceeds 700 grams. This form of contract is to be more widely introduced.

[Question] And did the inhabitants of Brest welcome creation of the combine?

[Answer] In my opinion, yes. Fresh vegetables, cucumbers, and tomatoes did not disappear from store shelves in the spring and all through the summer. There are also spring onions, parsley, spinach, and even red peppers. We even have our own flower shop. We have already sold flowers worth more than 20,000 rubles. In the spring we sold tomato plants to the public. The demand for our fresh produce is great, and we will try to satisfy it.

[Question] At what prices are you selling produce?

[Answer] We set the prices ourselves. But they are 20-25 percent lower than on the market. For instance, in the early spring the private were selling tomatoes on the market at 6-7 rubles per kilogram, and we sold 120 tons of fresh tomatoes for an average of 5 rubles per kilogram. We also sold the tomato plants for barely more than half the price the private were selling them for. Moreover, our vegetables are equal to those on the market in freshness and quality. That is why there is always a line at our stores.

[Question] And what are the prices of meat products?

[Answer] At present our prices are higher than those in state trade. But our task is to achieve a drop in the production cost of the products we produce and process. And to achieve self-support of the enterprises not by raising retail prices, but by reducing excessive costs in all the technical units.

[Question] But at present it seems things are going the other way around. The agroindustrial combine has a larger staff than the RAPO did?

[Answer] True, a third larger. But after all twice as many organizations have been brought together in the combine as were in the RAPO. But we do not consider even this management apparatus ideal. It will be improved and reduced.

[Question] Nikolay Nikolayevich, how has the supply of materials and equipment been organized?

[Answer] Up to now the previous rules and laws are in effect. But the combine may obtain without allocations products from other enterprises and organizations sold without job orders, superfluous inventories, and also purchase the necessary items in wholesale and retail trade consistent with the legislation in effect. But, I repeat, so far this has only been written down in our Statute.

[Question] You say: the combine may purchase. But where does it get the money?

[Answer] At present our combine does not have its own money. But following the example of the Agroindustrial Combine "Kuban" we intend to set up our own financial and accounting center (a kind of production bank of the APK). All of the economic and financial operation of the APK will be organized in a fundamentally new way when it is created.

[Question] What does that mean?

[Answer] At present the farms in the rayon and various enterprises and organizations making up the combine sometimes enter into direct relations with Gosbank themselves and conduct all their financial operations. When the financial and accounting center is created, it will handle all settlements among the enterprises and organizations as well as with supply, procurement, trade, and other enterprises and organizations and with USSR Gosbank.

The combine will become the sole borrower and also payer with respect to all money obligations, and in relations with financial authorities it will be the sole recipient of budget appropriations and sole payer of taxes into the budget in accordance with the approved financial plan.

[Question] Which means that the combine's subdivisions will not themselves have any relations whatsoever with Gosbank?

[Answer] Quite right. This function is being entirely taken over by the accounting center. All the enterprises and organizations which are part of the combine will close their current accounts in Gosbank and open accounts in the combine's financial and accounting

center. Thus the combine will be able to use the money with greater speed and efficiency, to invest it in construction projects that are more necessary at a given moment. For example, reconstruction of livestock-raising buildings and construction of housing and cultural facilities are now going on intensively. That is also where the fixed capital is going. The farms and enterprises will make use of credits obtained in the accounting center without payment of interest.

[Question] What sort of problems are today standing in the way of the combine's most rapid evolution?

[Answer] There are many problems. The supply of materials and equipment has not been altogether worked out. We still have not begun to get supplies through the new channels, but the old ones are already shutting down. Since our agroindustrial combine is directly subordinate to BSSR Gosagroprom, the oblast supply organizations send things to us through them, and BSSR Gosagroprom sends things to the oblast organizations. We have a great shortage of building materials, spare parts for equipment, and equipment itself. We have an urgent need to drain 7,300 hectares of wet land. And we also do not know at present who is going to do this.

[Question] And the last question: What are your plans?

[Answer] To get on our feet more rapidly, to prove our viability and the important economic effectiveness of the restructuring being carried out.

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**Agroprom Conference Considers Major Tasks**  
*18240013 Moscow IZVESTIYA in Russian 9 Oct 87 p 2*

[Article by I. Abakumov: "Agroprom Without Compliments"]

[Text] But what did the deputy minister of finances say? There was nothing to laugh at. He merely furnished a sincere answer to the question: why is 80 percent of the profit of processing enterprises being withdrawn? His reply was as follows: "If this money is left to the agroprom, it will still do nothing. It will just be retained." He spoke just as he thought and this was the vexing part of it.

Such animated moments are not rare occurrences during meetings of the preparatory deputy committees. And one must obviously not be surprised by this fact: each participant in a discussion represents a specific department and defends the interests of that department. But when he begins to lose his sense of reality — laughter breaks out in the hall and, frankly speaking, it is not always a merry laughter.

In such instances, the reality is as follows: when the meat combines, dairy and sugar plants, confectionery and other factories were added to the agroprom structure, the villagers were horrified. From the side it appeared that these enterprises were raking in the money and yet a closer glance revealed that the equipment was primitive, old, worn out and that there was not even a need for purchasing bricks. Twenty percent of the profit which remained — was this really money? Only then did it become quite clear why one third of the crops grown is lost each year: there is no place to store or process them. And it was no wonder that almost every speech during the preparatory deputy committee for the agro-industrial committee either began or ended with a statement concerning the alarming status of this branch of the agrarian industry. Thus the draft plan for the development of the APK [agro-industrial complex] in 1988 contained a proposal for a sharp increase in capital investments for developing the processing base.

"This problem has truly outgrown itself" stated the 1st deputy chairman of USSR Gosplan P. Paskar in his report. "The requirements for comprehensive use of reserves and a maximum reduction in losses constitute an important component part of the party's long term policy for raising the economic effectiveness of all branches of the agro-industrial complex."

During the coming year, 200 million more rubles than called for earlier will be allocated from the agroprom budget for developing this priority trend and this will create a true basis for carrying out the tasks for three years of the five-year plan in connection with placing capabilities in operation for the production of fruit and vegetable canned goods and for the processing of meat and milk. Thirty six percent more potato, vegetable and fruit storehouses than the number called for in the five-year plan will be built. Certainly, the speaker pointed out that one allocation of funds is not enough. He emphasized that Gosplan, Gosagroprom [State Agro-Industrial Committee], USSR Minkhleboproduktov [Ministry of Grain Products] and other departments, together with the union republic councils of ministers and local organs, must change radically their attitude towards the lag that has developed in the logistical base for the processing of agricultural products.

There was a good reason for the last sentence. The deputies were disturbed somewhat by the optimistic manner in which Yu. Rozov was managing the affairs of Minlegpishchemash. He even stated with enthusiasm that the branch has been over-fulfilling its plans since 1964. But it turned out that there was either no equipment for the processing enterprises or it failed to meet the requirements of the times. Moreover, it turned out that water and juices simply could not be poured into 300-gram bottles, not to mention the inability to satisfy the increasing demand of the rural areas for the equipment needed for small meat combines, bakeries and many other facilities. Today the need for such lines exceeds by a minimum factor of 2.5-3 the potential of the



ministry's enterprises. And the government has been forced to assign these orders to the plants of other machine building departments, including defense plants.

During this committee meeting, a maximum amount of attention was given to the problems of agricultural production. In the plan for next year, a priority was assigned, just as in the past, to the production of those products the lag in the production of which was greatest. This included grain, vegetable oil and sugar. In their plan computations, the republics are calling for a gross grain yield that will be 25-30 million tons more than the amount expected this year. This is precisely the amount required for balancing the country's requirements. The proven path for obtaining high yields is that of expanding the use of intensive technologies, as borne out by the present harvest: 10-20 more quintals of grain are being obtained in those areas where these technologies are being observed. In 1988 the areas of their use will be expanded to 39 million hectares, with the plans calling for the principal resources of fertilizer, pesticides and modern equipment to be concentrated on these areas.

The situation with regard to the production of vegetable oil is more complicated. Compared to the previous five-year plan, the gross yield of sunflowers during the 11th Five-Year Plan declined by 6 percent. Reductions in such production were observed almost in all of the republics. The state was forced to curtail in deficit in oil by means of import purchases. Measures were undertaken this year aimed at raising the material interest of those farms engaged in growing oil-bearing crops. The plan for next year calls for a realistic increase of 700,000 tons in the production of oil. This certainly will reduce the oil shortage.

An equally difficult situation exists with regard to supplying the population with domestically produced sugar. In their speeches, the deputies noted that many problems of an organizational, economical and agrotechnical nature have developed within the branch. It is their position that it can hardly be considered normal when a highly developed country has to purchase sugar. There are many reasons for this. They would include untimely harvest operations, poor wages, miscalculations in the use of fertilizer and tremendous losses during processing operations. The country's sugar plants have not been adequately supplied with concrete sites for the storage of the sweet roots. Next year's plans call for sugar beets to be grown on an area that will be 14 percent larger than this season's area. But the deputies noted that this will require drastic changes, mainly of an economic and organizational nature, throughout the branch.

Many kolkhozes and sovkhozes are experiencing a need for economic changes. Twelve percent of the farms sustained losses during 1986. Prior to the beginning of this year, bank loan indebtedness amounted to more than 140 billion rubles. The majority of the farms in Kazakhstan and Uzbekistan have exhausted their own working capital and are carrying out their production operations based upon credit entirely. At the present time, with the task having been assigned of

converting enterprises over to complete cost accounting and self-support, the problem of mass economic general education has become more acute, notwithstanding the fact that agroprom on the whole is operating on a profitable basis.

The 1st deputy chairman of USSR Agroprom A. Iyevler stated that it should be borne in mind that 75 percent of this profit is concentrated at 25 percent of the economically strong farms. The task consists of ensuring that informal cost accounting is introduced into operations at all of the kolkhozes and sovkhozes. As yet, only 55 percent of the farms are operating on this basis. The fact that 87 percent of the arable land is being worked by collectives which operate on a contractual basis is considered to be quite favorable. More than one half of the cattle and approximately 80 percent of the sheep and poultry are assigned to these collectives. Tens of thousands of agreements have been concluded this year for work to be carried out on a family or personal contract basis. The development of economic initiative in the rural areas is fostering the hope that the financial status of the farms will be improved.

Under these conditions, priority will be given to the need for strengthening agro-industrial integration. However, the plan for 1988 does not contain a final solution for this problem. Moreover, it comes as no surprise to learn that many practical workers have still not indicated what form this solution should take. Today there are 34 agro-industrial combines, 8 agricultural firms and 6 associations of the Novomoskovskoye type in operation throughout the country and scientific-production systems are being created. Moreover, some experience has been accumulated in independent management of the economy and this will make it possible, commencing 1 January 1988, to convert a number of oblasts, krais and autonomous and union republics over to the system of self-support. Although this work is difficult, it must not be postponed until tomorrow.

This year, as never before, the deputies are examining the draft state plan. Only 3 months remain before the end of the year and they are already furnishing their own conclusions regarding the prospects for the future. What should they focus their attention on primarily? Should it be the fact that the departments included in the structure of the agro-industrial complex are not carrying out their work in a sufficiently coordinated manner? For example, with regard to the USSR Ministry of Grain Products it has been stated directly that the interests of its enterprises do not always coincide with the national economic interests. The sovkhozes and processing workers are experiencing difficulties in cooperating with one another. Meanwhile, the problem in the rural areas today is being expressed as follows: a producer is the chief element in the APK structure. In order to explain this properly, the stereotypes of yesterday must be overcome.

## REGIONAL DEVELOPMENT

### **Moldavian Agroprom Operational Problems Aired** *18240006 Moscow SELSKOYE KHOZYAYSTVO* *MOLDAVII in Russian No 8, Aug 87 pp 6-8*

[Article by A. Tsurkanu, chief, Agriculture and Food Industry Department, Moldavian Communist Party Central Committee: "The Agroindustrial Complex's Potential — A Program for Acceleration"]

[Text] Modern agroindustrial production in the republic is developing on a qualitatively new basis and increasingly relies upon scientific and technical achievements. The accumulated potential made it possible to increase APK production by 16.5 percent during the 11th Five-Year Plan.

At the same time it must be noted that the returns from investments and resources could be somewhat higher. What are the reasons for the reduced efficiency in using the APK's potentials? It appears that a role was played by miscalculations in scientific and technical policies, the underestimation of economic methods in management and insufficient attention to the social sphere's development.

Scientific-production associations for agriculture were set up in Moldavia in the middle of the 1970's. They began to concentrate on the scientifically based growing of varietal seeds, planting stock for perennial crops and animal and poultry breeding stock.

However, successes attained in the first stages of integrating science and production were not consolidated. The departmentally fragmented scientific-production associations did not have the resources sufficient to make an economic impact upon agricultural development.

Plans for the introduction of new technology were not fulfilled during the 11th Five-Year Plan. A sizable share of the measures were only slowly and unevenly introduced.

In spite of the increase in the value of fixed productive capital in agriculture, a sizable share does not meet production requirements. For example, one-third of the 16,600 tractors being used in republic Gosagroprom have outlived their depreciation periods and about half of the motor vehicles are more than 10 years old. Annual output per tractor declines year after year. In the 5 years preceding 1983 the annual and daily output per standard tractor were 1,697 and 8.7 standard hectares. In the past 3 years these have declined to 1,599 and 8.27 hectares. The decline in daily output is equal to completely eliminating from agricultural work 4,600 tractors with a book value totaling 26 million rubles.

These targets were not met: growing corn, sugar beets and vegetables on an industrial basis and for producing beef and pork.

Seed production standards require improvement. Over the past 5 years 81 percent of winter crop seeds and only 61 percent of the spring crop seeds were first class. Hybrid seed corn arrives with admixtures of self-pollinating lines.

The Gibrid and Selektiya NPO's have not organized the production introduction of high yielding good replacement hybrid corn for silage and mangel-wurzels with high dry weight.

The Dnestr NPO allows serious shortcomings in the development of intensive technology. In the past five-year plan vegetable crop yields were only 157 quintals per hectare, 3 quintals less than in the 10th Five-Year Plan.

For several years the Kodru NPO has not supplied production units the needed planting stock and is timidly developing and introducing modern industrial technology. This led to big errors in planting new intensive orchards, choosing sections for planting, selecting and locating species, varieties and seedling stock. Compared to 1976-1980, during 1981-1985 fruit yields only increased by 3.5 quintals.

The Viyerul NPO is making a very insufficient contribution to the further development of grape production, especially table grapes. With table grapes only accounting for 5 percent of the total grape harvest, during the 11th Five-Year Plan only 64 percent of output met standards. More than 20,000 or 36 percent of the gross production of these varieties was used for industrial processing. This meant losses totalling 2 million rubles for farms in the republic.

The Zarya and Progress NPOs require radical restructuring. There are very uneven productivity and other indicators for the mother herds of cattle and hogs. Even on farms in Brichanskiy Rayon in 1986 the difference in dairy cow productivity was more than 200 kilograms of milk.

The republic Gosagroprom is taking measures to bring order into ties between science and production. Scientific production systems are now being formed for soybeans, corn, vegetables and potatoes. These are based on the Selektiya, Gibrid and Dnestr scientific-production associations.

A scientific production system is a group of enterprises which have voluntarily entered into it on a contractual basis. They carry out jointly coordinated activities in the production of various products under the organizational and technological leadership of a head enterprise. This is based upon principles of cost accounting, mutual interest and responsibility.

The head enterprise, acting as the organizational-technological center, assumes responsibility for highly efficient crop production at enterprises and organizations in the system, develops and improves production techniques based upon the latest scientific and technical achievements, organizes their production introduction and provides material and technical supplies.

Today, at the beginning stages of these new formations, it is important to avoid administrativism and haste, and strictly see that farms enter on a voluntary basis. The results from economic activities should be the best evidence here. Of course, this does not mean that the appropriate units in republic Gosagroprom remain sideline observers. Their task is to remove the many unnecessary obstacles on the way to scientific production systems.

The transition of APK units to economic methods of management requires a lot of attention. The indisputable advantages of collective contract are still poorly utilized, it is often mastered only formally, without cost accounting. Contractual agreements with administrations do not cover responsibility for the transfer of resources. Payments from gross income are being very slowly introduced. There are delays in preparing farms for the transition to self-financing. In 1987 two-thirds of the farms were not able to convert to this progressive method.

All this is a result of the prolonged dominance of administrative methods in management, where the slogan "The plan at any price" reigned. Today the priorities in the economic development of the APK are clear to us. First of all, we should eliminate the disproportions between agricultural production volumes and processing capacity, packaging, transport and storage in the food industry.

The growth rates in the production-technical and raw material bases in several sectors remain low, preventing the effective utilization of industrial potential. Inappropriate solutions to questions in the technical reequipping of enterprises, in eliminating lack of linkage between basic and auxiliary production operations, shortages of raw materials for intermediate processing and the failure to introduce production capacity in the time allowed by norms all led to the following reductions in output-capital ratios in the past five-year plan: in the sugar sector — 11 percent, in oils and fats — 31 percent, in meat and dairy — 14.8 percent, and in canned goods — 14 percent. Unpreparedness for processing agricultural raw materials caused above norm losses of such materials and reductions in finished products. For this reason alone, during the 11th Five-Year Plan the state was shorted 30,000 tons of sugar, 1,344 tons of sunflower oil and more than 16 million standard cans of fruit and vegetable products.

A study of processing lines and equipment in MSSR Gosagroprom industry shows that only 20.8 percent of them have techno-economic parameters corresponding to world standards, 50.3 percent meet Soviet standards and 28.7 percent do not meet contemporary standards and should be replaced.

The realism of the acceleration program in animal husbandry now sets the pace for feed production intensification and converting the sector to an industrial basis. During the 11th Five-Year Plan pork production complexes only worked at 68 percent of capacity.

The work results of scientific collectives' engaged, during the past five-year plan, in developing the republic scientific and technical program "Economics of the APK" force one to think about the real return from proposals, methods and normatives presented for introduction. The impression is created that the most acute problems facing the republic's APK either remain outside scientists' field of view or are only superficially solved. In 1981-1985 35 developments completed within the program were introduced. Fragmented research and the low standards of developments are the reason most of them have no practical application.

During the current five-year plan the Scientific Research Institute for the Economics and Organization of Agricultural Production in the MSSR Gosagroprom was named the head organization for republic scientific-economic problems, replacing the Economics Institute at the republic Academy of Sciences. However, the situation has not improved, but has perhaps even deteriorated. The Coordinating Council is inactive and scientific potential is scattered throughout numerous small organizations. The time has come to take practical actions to unify, into a single scientific-production complex, the efforts of scientists working on the APK's development.

This March the Moldavian Communist Party Central Committee Bureau examined the question "On Measures to Improve the Efficiency of Production Potential in the Republic's Agroindustrial Complex" and deemed the work of the Gosagroprom, ministries and departments in the effective use of republic APK productive capital insufficient and not responsive to restructuring. Moldavian SSR Gosplan and Gosagroprom, ministries and departments in the APK, party gorkoms and raykoms and ispolkoms of city and rayon soviets of people's deputies were given specific instructions to take practical measures to accelerate reconstruction, technical reequipping, expand the material-technical base of sectors in the APK, introduce intensive and waste free production processes and strengthen control over the completion of plans to modernize capacity and effectively use all potentials in the APK.

Under the new conditions there is an increased role for specialists in agroindustrial production. Their activities are successful and fruitful only when they have a social

direction. Each innovation introduced should be oriented towards making people's labor easier and completely safe and towards real increases in production.

Many negative processes in using the APK's production potential are linked to distortions in implementing cadre policy. In spite of significant improvements in the qualitative composition of APK management and specialist personnel, in recent years cadre stability had deteriorated sharply and there is a tendency for turnover to increase. One out of 5 sovkhoz director, and chairman of a kolkhoz or interfarm association in the republic has been working there less than a year. In 1986 alone about 20 percent of farm managers and chief specialists were replaced. Large scale replacements of middle level cadre are also allowed. Work with reserves and young specialists does not meet the demands for restructuring. Plans for improving qualifications and training cadre are not fulfilled.

The system for training higher and middle level cadre is slowly being restructured. Special demands should be made concerning the quality of training in economic questions and organizing production for the industrialization of agriculture. There are serious shortcomings in the activities at the Kishinev Agricultural Institute imeni M. V. Frunze and at sovkhoz-tekhnikums in the republic Gosagroprom.

In following the spirit of the January (1987) CPSU Plenum and increasing the demands made upon specialists, party organizations are also called upon to create conditions for their fruitful work. It is essential to assure communists' vanguard role in increasing production and improving APK leadership, in properly assigning cadre and strictly questioning those who show adherence to obsolete work methods and are slow in restructuring. It is party organizations' duty to do everything so that each farm in the republic APK is fully capable of discovering its potential and fulfilling the socialist obligations assumed in honor of the 70th Anniversary of the Great October Revolution.

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## LIVESTOCK AND FEED PROCUREMENT

### Increased Milk Production, Improved Processing Sought

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[Article by V. Sergeyev, deputy chief of the Department for the Production and Processing of Animal Husbandry Products of USSR Gosagroprom: "Methods for Increasing the Production of Dairy Products"]

[Text] As noted during the June (1987) Plenum of the CPSU Central Committee, all of the objective conditions required for carrying out a type of intensification in

the production of agricultural products were created during the current stage. A real opportunity exists for surpassing the planned tasks of the five-year plan and, on this basis, for achieving unconditional fulfillment of the deliveries into the state funds and for improving sharply the supply of goods for the local population. This fully applies to the dairy sub-complex of the country's agro-industrial complex.

Workers assigned to the dairy sub-complex of the country's APK [agro-industrial complex] have successfully completed the first year of the 12th Five-Year Plan and they exceeded the average annual rate of growth in accordance with the indicators established in the five-year plan. The emphasis placed upon the final results made it possible in 1986 to increase the country's milk production to 101 million tons. Milk production at kolkhozes and sovkhozes reached 78.6 million tons in 1986. The remaining amount was produced on the private plots of the population.

Over the past 4 years, the size of the milking herd declined by almost 600,000 cows, while the milk yield per cow was raised by more than 400 kilograms and reached 2,604 kilograms.

The chief condition for stable growth in the productivity of the animals — the creation of a strong and guaranteed feed base. Over the past 4 years, feed consumption increased by 11 million tons of feed units, or by 11 percent. Roughly 4,030 feed units are being expended per cow at the present time. The consumption of succulent and coarse feed increased by 18 percent, while the consumption of concentrates per cow declined from 990 to 930 feed units. The quality of the forage was raised. Three fourths of the hay and silage and almost two thirds of the haylage and grass meal were of 1st or 2d grade when procured. However, the failure to balance the rations in terms of protein and carbohydrates continued to be a bottleneck. Prior to the end of the five-year plan, the task had been assigned of raising the production of all types of forage per cow to 4,500 feed units, with an average content of 110 grams of digestible protein in a feed unit.

The annual plans for the sale of milk to the state were fulfilled by all of the union republics. Milk purchases in 1986 reached 71.8 million tons and increased compared to the preceding year by 3.7 million tons, or by 5.5 percent. Roughly 4.2 million tons of milk were added to the state resources over and above the plan.

Deserving of special attention is the question concerning the completion, during the 12th Five-Year Plan, of the conversion over to milk being accepted directly at the kolkhozes and sovkhozes and the milk being shipped using the transport equipment of the procurement specialists.

In 1986, 28.9 million tons of milk, or 44 percent of the amount made available for processing, were accepted and shipped on a centralized basis, compared to only 25.7 million tons (41 percent) in 1985.

In connection with converting over to this progressive form of procurements, a considerable amount of work was carried out by the gosagroproms [state agro-industrial committees] of the Moldavian and Tajik SSR's, where the proportion of the milk accepted at the sites amounted to from 60 to 70 percent. The conversion over to milk being accepted directly at the kolkhozes and sovkhozes has for all practical purposes been completed in a number of krais and oblasts of the Russian Federation and in the Moldavian and Belorussian SSR's. The positive experience accumulated in a number of rayons throughout the country reveals that the conversion over to accepting milk directly on the farms is improving the operational rhythm of the dairy industry enterprises, ensuring better quality milk, reducing milk losses during shipment and exerting a positive effect on the quality of the finished products.

At the same time, the rates achieved in converting over to accepting milk directly on the farms are still inadequate for the timely completion of this work by 1990, as called for in the party and governmental decrees. In order to carry out the established task, an average annual increase in the acceptance of milk directly at the kolkhozes and sovkhozes of 11 million tons must be achieved. This is greater by a factor of 3.5 than that achieved in 1986.

In order to expand the conversion over to the acceptance of milk directly in the production areas, the union republic gosagroproms, the oblast and kray agro-industrial committees and the RAPO's must, in a more active manner, ensure that the farms are supplied with weight measuring equipment, refrigeration units, containers for the storage of milk, milk pumps and other equipment, the construction of roads and spur tracks leading to the farms, the allocation of the required number of tank trucks for ensuring the shipment of the milk from the farms and they must engage more actively in training the personnel for providing technical services and for operating their equipment.

The strengthening of integration relationships among the kolkhozes, sovkhozes and enterprises of the dairy industry, in connection with improving the primary processing and storage of the milk, has promoted further improvements in its quality. In 1986, 84 percent of the milk purchased throughout the country on the whole was of 1st grade quality. Roughly 90-95 percent of the milk turned over by kolkhozes and sovkhozes in the Lithuanian and Latvian SSR's was of this quality. Many farms in the Baltic republics are selling all of their milk to the state at 1st grade quality and in refrigerated form.

At the same time, kolkhozes and sovkhozes in a number of union republics are continuing to sell low quality milk which does not meet the requirements of the existing standard.

Last year, 5 percent of the milk delivered to processing enterprises was of sub-standard quality and in some rayons in the Azerbaijan and Kazakh SSR's — up to 40 percent. In recent years, there has been practically no decline in the amount of milk being received from farms having diseased cows. In 1986, an average of 3.5 percent (2.2 million tons) of the country's milk was obtained from diseased cows or cows suspected of having diseases, in the Kazakh SSR — 27 percent and in the Uzbek SSR — 9.2 percent. Over the course of a year's time, the industry's enterprises received 38,300 tons of milk deemed to be unsuitable for the production of food products.

In a number of regions, the question concerned with organizing the cooling of milk on the farms is being resolved very slowly. Compared to the country as a whole where 55.6 percent of the milk being received for processing is in a cooled state, in the republics of Central Asia and the Trans-Caucasus — not more than 8 percent. In addition to inadequate support for the kolkhozes and sovkhozes in terms of the number of refrigeration units, many of these units are not being utilized effectively as a result of unsatisfactory technical servicing.

The low quality of the milk being procured is in many instances the result of violations of the sanitary and veterinary rules during the delivery and primary processing of the milk and unsatisfactory support for the kolkhozes and sovkhozes in terms of the required amounts of technological and laboratory equipment, filtering materials and disinfecting agents.

In conformity with the state program for all-round standardization, the plans call for the completion in 1988 of the new GOST [state standard] for milk procurements. The need is at hand for ensuring that the new standard includes the mandatory condition for cooling the milk to 5 degrees Centigrade when being shipped from the farms and to 10 degrees Centigrade for the usual acceptance. In addition, methods should be available for evaluating the mixtures of inhibiting substances, abnormal milk and antibiotics.

At the present time, an experimental check is being carried out at 42 cheese-making plants and 5 milk-canning combines on the technical conditions for milk used for the production of cheese and children's products, which include raised indicators for the quality of the milk procured. In order to compensate for the additional expenses incurred by kolkhozes and sovkhozes when obtaining such milk, the plans call for an appropriate mark-up to be applied to the purchase prices.

The status and development of the production-technical base for the processing of milk exerts a substantial effect with regard to ensuring that the country's population is supplied with rich dairy products.

The branch includes 4,160 enterprises and in addition there are 3,740 separation departments and 5,830 permanently active milk-receiving points. During the milk acceptance season, 10,000 more temporary milk-receiving points are opened up. Meanwhile, the technical level of many active dairy plants continues to remain low and a considerable number of enterprises are located in adapted facilities in which the degree of wear and tear is more than 70 percent and which were built prior to 1950. More than one third of the plants lack purification facilities. A weak production-technical base precludes the possibility of utilizing fully skim milk, buttermilk and whey for industrial processing.

The inadequate development of the network of processing enterprises and procurement points produced a situation wherein, in a number of regions in Central Asia and the Trans-Caucasus, milk deliveries from kolkhozes, sovkhoses and private plots became more difficult owing to the large distances over which they had to be shipped. This is lowering considerably the quality of the milk and dairy products. The average delivery radius for milk shipped using the transport equipment of kolkhozes and sovkhoses is 25 kilometers, but 14 percent of the milk is delivered over distances in excess of 50 kilometers.

Enterprises of the dairy industry can accept and process 200,000 tons of milk per shift, assuming a daily delivery of 290,000 tons during the month of maximum milk production. In all, during this period an enterprise may be supplied with approximately 530,000 tons of whole skim milk, buttermilk and whey over a 24 hour period. Existing capabilities make it possible to process only 400,000 tons of raw materials. The remaining amount of secondary raw materials must be returned by industry for use as livestock feed. Thus the capital investments that are allocated must be utilized fully and primarily for the technical re-equipping and modernization of enterprises, capabilities must be introduced into operations in a timely manner and more extensive use must be made of the potential available for developing the production-technical base.

The conversion of the dairy industry over to the intensive path of development is dependent to a considerable degree upon the rates for the replacement of the active portion of the fixed productive capital.

A number of purposeful measures are being carried out in this direction during the 12th Five-Year Plan. The plans call for the installation of more than 1.5 billion rubles worth of technological equipment at enterprises throughout the branch. For the replacement of the active portion of fixed capital, jointly with the machine building ministries, the plans call for the creation of 100 types of new equipment. However, the reorganization of food

machine building in the interests of satisfying the requirements of dairy plants for equipment and spare parts and raising its reliability is being carried out at inadequate rates. We are still encountering non-deliveries of equipment called for on the basis of funds allocated. The situation with regard to ensuring that the dairy plants are supplied with refrigeration-compressor equipment, electric loaders and other general items of plant equipment produced by Minkhimmash [Ministry of Chemical and Petroleum Machine Building], Minenergomash [Ministry of Power Machine Building] and other departments continues to remain unsatisfactory.

As a result of failure to satisfy the annual requirements of industry for the principal types of equipment, enterprises are unable to replace in a timely manner their obsolete or physically worn out machines and items of equipment. The plants are forced into having to continue to use them, despite the fact that the equipment no longer can produce the rated productivity or the desired output quality and is unreliable in operation.

Serious improvements are needed in the system for the production and delivery of spare parts. Their volumes and nomenclature are not in keeping with the requirements of the dairy plants. As a result, such important operational indicators of the branch as the timely acceptance and processing of milk during the period of its mass production on the farms, labor productivity, the quality of the products being produced and the level of use of raw material and fuel-energy resources are still not satisfying fully the needs of the times. The question concerning the production of new equipment based upon available documentation is being resolved only slowly and the new equipment recommended for series production during the first 2-3 years is being produced in small quantities and this is not producing the proper effect with regard to raising the technical level of production on the whole.

The existing situation with regard to the availability of new equipment is one of the principal reasons for the inadequate degree of milk processing, for losses in output and raw materials and for a slow-down in the rates of growth for labor productivity in the dairy industry. As a result, more than 150,000 workers will perform manual labor at enterprises of the branch during the current five-year plan.

The successful carrying out of the tasks of the Food Program requires a rapid reorganization of food machine building. Towards this end, Minlegpishchemash [Ministry of Machine Building for Light and Food Industry and Household Appliances], which is the principal supplier of equipment for the processing of milk, has been tasked with increasing the production of equipment needed by the branch. The assistance of other machine building ministries is also being sought for the production of complicated types of equipment.

### Production of Whole Milk Products

In 1986, enterprises of the dairy industry produced 30,734,000 tons of whole milk products in a conversion for milk.

Compared to 1985, an increase took place in the production of dairy products for which there is a high demand among the population: sterilized milk — by 8 percent, dairy beverages — by 10 percent, curds and pot cheese products — by 7 percent, dairy products with fruit and berry additives — by 15 percent. During the 1985-1986 period, the production of more than 20 types of products was mastered.

Of the overall production volume for dairy products, 70 percent had a lowered fat content and were balanced in terms of protein.

At the same time, the status of affairs with regard to product quality continues to be unsatisfactory in a number of areas. There have been incidents of products being produced with deviations from the requirements set forth in the normative-technical documentation and coarse violations of the technological and sanitary production regimes.

During the current five-year plan, it will be necessary to increase the production of whole milk products of raised nutritional and biological value and enriched by proteins of animal and plant origin and fruit- berry and fruit components. In addition, the production of sterilized milk with a 1.5 percent fat content must be mastered and an increase must take place in the production of pot cheese with 2 and 5 percent fat content and enriched by serum proteins.

The plans also call for an increase in 1990 in the production of packaged dairy products to 15 million tons, with growth by a factor of 1.6 compared to 1985. Moreover, the production of milk and other liquid dairy products in light packaging must be increased by a factor of 1.6, sour cream — by a factor of 2.1 and pot cheese — a twofold increase.

However, this program is being held up today mainly by a lack of the required equipment, insufficient packaging and wrapping materials and specialized motor transport equipment and also by a shortage of refrigeration capabilities at the trade enterprises.

### Cheeses and Animal Oil

The branch's workers have large tasks confronting them in connection with further increasing the production and improving the quality of cheeses. In 1986, 835,000 tons of cheese were produced, including 588,000 tons of rennet cheese and 247,000 tons of processed cheese. Compared to the 1985 level, the amount of cheese produced was increased by 31,000 tons (by 3.9 percent).

At the same time, the amount of cheese produced by cheese making enterprises in the Russian Federation was 10,400 tons less than the plan.

The principal cause of this situation was unsatisfactory control on the part of the agroproms [agro-industrial committees] over the work of enterprises in connection with the use of raw material resources, which in the zones of some plants were employed unjustifiably for the production of other dairy products to the detriment of cheese production. This serves to underscore the lack of attention in some areas to the development of cheese making and to solving those problems concerned with self-support in the form of food products. At the same time, many local organs urgently require subsidies from the union- republic fund for cheeses for which there is a high demand among the population.

In order to increase the production of cheeses and improve their quality, it will be necessary first of all to create conditions in the cheese making zones for obtaining and constantly increasing the production volumes of high quality cheese-suitable milk and also for improving the use of the production capabilities at operating cheese making plants, in the interest of ensuring that each one of them is in operation for not less than 500 shifts annually.

A large reserve for increasing the production of cheese is that of ripening it at inter-plant cheese storehouses and oil and cheese bases. These facilities are supplied with approximately 200,000 tons of rennet cheese annually, of which amount one half is for maturing. The turnover rate for the vats used for ripening the cheese, on average for the country as a whole, is 2.5 uses annually. One reserve for raising production is that of increasing the cheese ripening volumes at these enterprises during the summer period.

A substantial contribution can be made through an increase in the production of soft and pickled cheeses without maturing. In 1986, 91,400 tons of such cheeses, or 15.6 percent of the overall production volume for rennet cheeses, were produced. In the U.S.A. and France, the production of such cheeses was at the 30-40 percent level. The largest proportion of cheese production without maturing occurred in the Moldavian SSR — 42 percent and in the Ukrainian SSR — 25 percent.

In order to achieve a further increase in the production of cheeses, their production and distribution in polymer plastic and protective coverings must be developed to the maximum possible degree. This will increase the yield of cheese by reducing the degree of shrinkage by 3-4 percent and lowering labor expenditures for tending the cheese during the maturing process by 30-35 percent. More than 350,000 tons of cheese are being produced using this method and by 1990 this production must be raised to 420,000 tons.

At the present time, processed cheeses constitute approximately 30 percent of the overall volume of cheese production. Great opportunities for increasing cheese production, renewing the assortment and raising the taste properties and biological value of cheese are becoming available through the use of various additives and spices. During the years of the 11th Five-Year Plan, the industry mastered more than 20 types of processed cheeses containing additives and also cheeses with a 20 percent fat content. The plans call for the production of these cheeses to be increased to 90,000 tons by 1990, or one third of the production of processed cheeses. An increase in the production of processed cheeses of raised nutritional and biological value will make it possible to utilize more completely secondary dairy raw materials: skim milk, buttermilk and whey.

In the work concerned with increasing the production of cheese, considerable importance is being attached to further strengthening the production-technical base for cheese making. Many enterprises engaged in the production of processed cheeses find themselves in a very unsatisfactory technical state. More than one half of them are small departments with a capability of up to 3 tons per shift. Here use is made of obsolete equipment and difficulties are encountered in the mechanization of technological processes and this has an adverse effect with regard to expanding the assortment and raising quality. During the 12th Five-Year Plan, capabilities must be placed in operation for producing cheese in the amount of 217 tons per shift. One effective means for increasing production capabilities — the technical re-equipping of existing plants with the installation of highly productive equipment and the simultaneous organization of inter-plant cheese storehouses.

In 1986, the dairy industry enterprises produced 1,605,000 tons of animal oil and, as a result, the volume set forth in the Food Program for 1990 was achieved. The increase in the production of oil in 1986 and in previous years was achieved as a result of growth in milk purchases and the production of oil having a lowered calorific value.

The production of peasant butter (fat content — 72.5 percent) and sandwich butter (fat content — 61.5 percent) reached 860,000 tons in 1986. The fat being made available as a result of the above is making it possible to produce 200,000 additional tons of butter annually. An increase is planned in the production of butter over the next few years by means of above-plan purchases of milk and also through organizing the production of new types of butter, with a portion of the milk fat being replaced by vegetable fat.

At the present time, the production of culinary butter has been mastered, with 32 percent of the milk fat being replaced by ester-interchange fat produced by the butter and fat industry. In 1986, culinary butter was produced at dairy plants in Yaroslavl Oblast and the Lithuanian SSR using existing butter making equipment. Its mass

production can be organized in all of the union republics, with only minor re-equipping of existing capabilities and the installation of packaging equipment.

### Dry Dairy Products and Canned Goods

The production of dry dairy products in 1986 amounted to 271,100 tons, against a plan which called for 254,200 tons. Of the overall volume, 52,700 tons of dry products, including 41,800 tons of childrens' products, were produced in packaged form. The production of dry mixtures for ice cream was increased at existing capabilities, the production of which amounted to 7,800 tons against a plan which called for 6,800 tons. In 1990, the plans call for the production volumes for dry dairy products to be raised to 294,000 tons.

In order to solve the tasks for the additional production of dry whole milk, it will be necessary to carry out a radical technical re-equipping of existing enterprises using a set of equipment having a complete cycle and equipped with a control system based upon the use of micro-processor equipment. A number of plants must also be redesigned for the production of dry whole milk. The plans call for the construction of specialized departments for the production of dry mixtures for ice cream.

In 1986 the enterprises produced more than 1,509 mubs of canned dairy goods against a plan which called for 1,475 mubs. The average annual level for raising output, as embodied in the plan for the current five-year plan, was achieved. During the 12th Five-Year Plan, the dairy industry must solve a large complex of tasks concerned with raising the production of canned goods to 1,900 mubs, improving their quality and expanding the assortment.

Great social importance is being attached to the problem concerned with ensuring that special food products are made available for the country's children.

At the present time, five dairy canned goods combines are producing dry dairy products on an industrial basis for children of an early age: the mixtures "Malysh" and "Malyutka," low lactose mixtures and vitamin enriched cereals. Roughly 41,700 tons of these products were produced in 1986. The production of liquid and paste-forming products for children in their first year of life was organized at 45 enterprises.

The volumes achieved in the production of childrens' products are not satisfying the computed requirements as determined by USSR Minzdrav [Ministry of Health] and amount to 50 percent of the requirements in the case of dry products and 18 percent of the requirements for liquid and paste-forming products. The absence of domestic lines with complete mechanization of all technological operations constitutes a bottleneck with regard to increasing the food product volumes for children.



During the current five-year plan, the production of dry childrens' dairy products must be raised to 58,000 tons and those for liquid and paste-forming products — to 100,000 tons. Towards this end, the plans call for the modernization, expansion and technical re-equipping of existing enterprises, the redesigning of a number of dairy canned goods combines and also the creation of 50 departments at municipal dairy plants.

Scientific organizations have been assigned tasks for developing and introducing a technology for the production of new dairy products that will resemble maternal milk to the maximum possible degree in terms of the principal nutritional ingredients and indispensable factors and creating products enriched with protein and other components which possess protective properties. Considerable importance is being attached to developing dietetic products for children having different pathologies.

### **Dry Skim Milk, Whole Milk Substitutes and Dry Whey**

Over the past 20 years, a branch has once again been created in the dairy industry for the production of SOM [dry skim milk], ZTsM [whole milk substitutes] and dry whey. More than 200 large enterprises equipped with domestic and imported equipment have been built. Ninety inter-farm departments for ZTsM with an overall capability of 152 tons per shift are in operation in the dairy industry. They were built on a cooperative basis jointly with agricultural enterprises and those leased by dairy plants.

In 1986, as a result of the construction of new enterprises and the expansion, modernization and technical equipping of existing plants, the production capabilities for producing the mentioned products increased by 103 tons per shift. Inter-farm departments with a capability for 43 tons per shift were also introduced into operations.

Based upon new construction and the expansion, modernization and technical re-equipping of existing enterprises, the current five-year plan calls for the introduction into operations of capabilities for 734 tons per shift, or more by a factor of 2.1 than the increase during the 11th Five-Year Plan and for the production of these products at dairy plants to be raised to 955,000 tons in 1990, including up to 450,000 tons of milk substitutes.

In the interest of more complete satisfaction of the animal husbandry requirements for whole milk substitute, the plans call for the construction during a five-year period of approximately 400 additional inter-farm seasonal departments with a capability for producing 1,000 tons per shift. They will be built on a cooperative basis using the resources of agricultural enterprises and other financing sources. The placing in operation of inter-farm departments will ensure the additional production in 1990 of 255,000 tons of dry skim milk and whole milk substitute.

Since 1975, enterprises of the dairy branch have mastered the production of nutritional caseinates, which are used as dairy-protein enrichment agents in the production of sausages and other meat products. A kilogram of these caseinates, in terms of their nutritional value, is equivalent to 5 kilograms of meat. In 1986, 17,900 tons of them were produced. The production of casein, which serves as a raw material for the production of nutritional caseinates, amounted to approximately 32,000 tons in 1986 and by 1990 its production is to be raised to 36,000 tons.

The dairy industry enterprises are producing various types of whey concentrates that are used for food and feed purposes: dry whey, liquefied whey without sugar, concentrated and liquefied whey with sugar and dry dairy product.

The use of whey concentrates in various branches of the food industry and for feed purposes is economically profitable. Thus, for the production of confectionery products, 3.3 kilograms of liquefied whey with a 40 percent concentration of dry substances are used as a substitute for 1 kilogram of sugar. A 10 percent savings in the use of cream butter is achieved through the use of dry milk product for the production of torts and pastry. The use of dry whey in the production of regenerated milk provides a savings of 21 rubles per ton of finished product. The production of dry whey and other similar products will increase fourfold during the current five-year plan and that for liquefied whey — by a factor of 1.8.

The organization of the production of liquefied hydrolyzed whey is an especially promising trend. The sweetness of the finished product, as a result of the fermented hydrolysis of lactose, increases by a factor of 4-5 compared to the usual liquefied whey. The use of liquefied hydrolyzed whey in the production of baked products will produce a savings in sugar of up to 30 percent.

In order to organize the mass production of the mentioned semi-finished product during the 12th Five-Year Plan, the development and commencement of the series production of special lines must be accelerated.

### **Complete Processing of Milk**

The efficient and complete processing of raw materials made it possible in 1986 to increase the production of marketable products from 1 ton of processed milk by 2 rubles compared to 1985 and to raise it to 238 rubles.

A reserve for increasing the marketable output from a ton of processed milk is that of expanding the production of dairy products having a lowered content of milk butter. For example, in the production of sweet butter it amounts to 141 rubles, sandwich butter — 165 rubles and culinary butter — 208 rubles. The production of dairy products having fruit and berry additives increases the yield of marketable products from a unit of raw

material by 1-10 rubles. The production of processed non-fat cheeses with additives makes it possible to realize a savings of from 10 to 25 percent in milk protein.

As a result of the industrial processing of 72 million tons of milk in 1986, more than 42 million tons of skim milk and buttermilk and 13 million tons of whey were obtained. Less than 40 percent of these resources were used for the production of food products. The indicators for the production of marketable products from a unit of raw material served to underscore the effectiveness realized from the processing of secondary dairy resources.

The yield of marketable products from each ton of separated milk during the production of defatted dairy canned goods amounts to 270 rubles, during the production of dry ZTsM — 108 rubles, SOM — 93 rubles, defatted products — 64 rubles and in the absence of processing — only 10 rubles.

Each ton of whey, during processing into dry whey, furnishes 30 rubles worth of output, into milk sugar — 22 rubles and that used for feeding to livestock — only 3 rubles.

For 1990 the dairy industry workers have been assigned the task of raising the use of skim milk and buttermilk for industrial processing to 65 percent and whey to 60 percent of the overall resources.

The implementation of the planned measures for more intense processing (increase in the production of dairy products of raised nutritional and biological value, the use in production of skim milk, buttermilk and whey and the introduction of waste-free technologies) will make it possible in 1990 to increase the production of marketable products from 1 ton of processed materials to 251 rubles, or 15 rubles more than in 1985 and to obtain more than 1 billion rubles worth of additional products annually.

### **Integration and Improvements in the Economic Mechanism**

Work under the new conditions of management has confirmed the correctness of the direction being followed for integrating agriculture with the processing industry.

At the same time, during the course of working out the new system for administering the agro-industrial complex a need has developed for further improving it, for introducing on a more extensive scale economic methods for managing the farms and enterprises and for defining more precisely the forms for interaction among the partners.

Special attention must be given to the problem of improving the operational management of enterprises of the meat and dairy industry, the production activity of which transcends the RAPO [rayon agro-industrial association] in terms of a number of functions.

The rayon agro-industrial associations, as revealed by last year's operational results, quite often do not provide proper or timely solutions for those problems concerned with ensuring that the enterprises are supplied with raw materials, that these materials are used in an efficient manner, the carrying out of contractual obligations for deliveries of products, all-round technical re-equipping or the introduction of the achievements of scientific-technical progress.

Serious difficulties are arising in connection with determining the delivery and acceptance volumes for milk being supplied to processing enterprises from other rayons and also when carrying out obligations associated with the deliveries of products to the union-republic fund.

The agroprom leaders of republics, krais and oblasts must examine thoroughly the administrative structure of the processing enterprises and, where advisable, subordinate them directly to the oblast or kray agro-industrial committees for the further development of integration between industry and agriculture. These processes must be based upon the economic forms for mutual interest among partners in achieving high final results.

The work directed towards finding new forms for agro-industrial integration must be continued. In particular, a check must be carried out on the effectiveness of the branch agro-industrial combines of enterprises of the meat and dairy industry and kolkhozes and sovkhozes included in their raw material zone. The principal task of these combines must be that of improving the supply of high quality food products in a broad assortment for the population. The work of these combines must be developed on a contractual basis, one which calls for mutual coordination of the interests of the parties involved and the creation of a single integration fund, intended for solving problems associated with strengthening interaction between an industrial enterprise, sovkhozes and kolkhozes.

Serious improvements are required in the work concerned with expanding the economic methods of management. The preparation of enterprises of the dairy industry for converting over to true cost accounting and self-financing must be accelerated. Under these conditions, special attention must be given to the development of sound economic norms which will ensure efficient production development and close coordination of operational results with the income independently handled by an enterprise or association.

### **Scientific-Technical Progress**

Our country has embarked upon a radical transformation of the logistical base and thorough modernization of the national economy based upon scientific-technical progress. Large-scale special purpose programs have been undertaken in keeping with leading trends. Those branches of the economy which are directly associated

with satisfying the population's requirements, such as the agro-industrial complex, light industry, trade and the sphere of services, have commenced operating on the basis of principles which will ensure broad independence and which will raise responsibility.

The role being played by the branch science in developing industry is increasing. Its reorganization is being carried out with a considerable expansion in experimental-design work and with emphasis being placed upon the creation of equipment for the mechanization and automation of production. Large new tasks remain to be solved by science, including the branch science. Work is being carried out on organizational forms for integrating science, engineering and production, which are making it possible to shorten the amount of time required for scientific developments to advance from the research stage to broad introduction into operations within the branch.

The efforts of the scientists are being concentrated on solving extremely vital problems concerned with development of the dairy industry, efforts which have been combined into five branch scientific-technical programs: "Milk," "Cheese," "Butter," "Membrane Engineering and Technology" and "Cold."

The "Milk" Program is aimed at developing the physiological and biological principles for the proper nourishment of various professional and age groups of the population and creating technological lines and equipment for milk production with an extended storage period, new products enriched by components of animal and plant origin and vitamins; completely mechanized sectors for the production of pot cheese and sour cream; the best use of milk proteins for food purposes; an expansion in the production of low calorie milk-protein products with whey proteins, with partial replacement of milk fat and protein by plant components and with the use of yeasts and bacterial preparations which will ensure stable quality and high biological value in the dairy products.

The "Cheese" Program is directed towards the mechanization of the principal and auxiliary processes employed at cheese making plants through the use of flexible module sets of equipment at enterprises of

varying capabilities, the introduction of lines and equipment for the mechanization of manual operations at cheese storehouses and the development of a new generation of bacterial preparations which will guarantee improvements in the quality of the cheeses.

In the "Butter" Program, an important role is played by the efficient use of milk through the creation and industrial development of new varieties of butter, which will be balanced in terms of fat and protein and have directed regulation of the fatty acid structure; the development of high productivity lines (up to 3,000 kilograms per hour) for the production of butter using methods for the whipping and conversion of high fat creams, a set of equipment for the mechanized preparation of packaging materials and automatic wrapping, weighing and packaging of the butter in boxes.

In the "Cold" Program, a great amount of attention is being given to intensifying the cooling and freezing processes for milk and dairy products. The plans also call for the introduction of progressive technologies for ice cream and dairy semi-finished products and improvements in the cold supply systems of enterprises in the interest of lowering the engineering, material and labor expenditures for the production of cold.

A typical characteristic of the mentioned programs — their comprehensive nature. The services of scientists representing more than 80 organizations, 19 ministries and departments and the USSR Academy of Sciences have been enlisted for the purpose of solving the problems associated with these programs.

The chief concern at the present time is to ensure that each element of party, state and social work is headed by individuals who are loyal to the party and nation and who are genuine innovators with an awareness of the need for bringing about qualitative changes in Soviet society. We have many such people. Thousands of enthusiasts are also working in the dairy industry. We are confronted by tasks of truly revolutionary scope and scale.

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## POLICY, ORGANIZATION

**Economist on Price Setting, Consumer Demands**  
*18270115 Moscow SOVETSKAYA TORGOVLYA*  
*in Russian No 6, Jun 87 pp 26-29*

[Article by A. Dyakov, economist: "Contractual Prices and Fashionable Goods"]

[Text] Moscow—The tasks of improving the economic mechanism are diverse in their content. However, the chief thing is to bring management into conformity with the much greater, new requirements at the present stage of socialist construction and to create a mechanism, which would give scope to intensive methods of management, creative activity, and socialist enterprise.

An important role belongs to restructuring the price formation system. The price problem is the most complex of the problems of commodity production under socialism. Key matters concerning production, distribution, exchange, and consumption are intersected in it.

In the next few years the price policy should be based on fundamental changes in the existing price formation system in combination with an improvement in the forms and methods that do not need a revision.

This path fully corresponds to the aims of the 27th party congress, which pointed out the following: "Prices are intended to become active tools of economic and social policy. We will have to implement a systematic restructuring of the price system as a single whole in the interest of setting up effective cost accounting and in accordance with the task of increasing the population's real income. It is necessary to lend a greater flexibility to prices and to coordinate their level not only with expenditures, but also with the consumer properties of goods, efficiency of articles, and degree of balance of the produced product with public needs and public demand. Plans are made to more extensively utilize limit and contractual prices."

The increase in economic independence and the limitation of the range of centrally planned indicators increase the interest of enterprises in the maximum volume of sale of output. However, the derivation of the biggest profit is attained only when the difference between the price level and individual production costs makes it possible not only to make mandatory payments into the budget, but also to form incentive funds of enterprises in appreciable amounts for every collective member. Ultimately, this depends on whether a commodity is sold. Customers cannot be administratively obligated to purchase certain articles.

Under the conditions of the socialist planned economy it is especially important to correctly take into consideration the operation of the law of value and its components—supply and demand. This cannot be attained without granting certain independence to enterprises in

price setting with an unconditional centralized management of the price formation system as a whole. As confirmed by practice, the construction of such a system can be ensured by combining centralized planning with the application of contractual prices of consumer goods.

An expansion of the sphere of their effect is envisaged in the USSR draft law on the state enterprise (association), where, in particular, the following is noted: "For the purpose of expanding independence in economic activity, more fully taking the individual needs of consumers into consideration, and stimulating the output of high-quality products and new equipment, the enterprise has the right to apply prices on the basis of an understanding with the consumer..."

The new conditions of management, to which trade and light industry change over in the current year, envisage measures to speed up the renovation of the assortment of goods on the basis of an extensive application of contractual prices.

Taking into consideration the importance of solving in a short time the problem of providing the population with fashionable articles at contractual prices and for the purpose of fundamentally improving trade and expanding the assortment of ultrafashionable goods, the RSFSR Ministry of Trade mapped out a number of measures.

In particular, plans have been made to open no less than 70 Moda [Fashion] stores in the capitals of autonomous republics, oblast and kray centers, and other cities in 1986-1987 and to approve for each of them an assortment specialization according to groups of goods. For this it is necessary to place orders with industrial enterprises for an assortment of ultrafashionable goods in volumes ensuring a smooth operation of these stores and a constant availability of goods on sale. Surveys of especially fashionable articles for the formation of collections and submission of orders will be held annually. Permanent supplier enterprises will be assigned to every "Moda" store and the volumes and group assortment of ultrafashionable articles will be determined for each of them. "Moda" stores were granted the right to the top-priority purchase of goods at wholesale fairs with the conclusion of direct long-term delivery contracts.

Thus, on the basis of an extensive utilization of contractual prices it becomes possible to solve such fundamental problems as the effect on industry, a prompt regulation of public demand, and stimulation of an increase in the output of fashionable and modern products.

At the same time, viewing contractual prices as the most important tool of management, we must not forget that an excessive decentralization of price formation can lead to a disruption in the integrity of the price system. It is especially important to take this into consideration, because the existing system of setting and applying contractual prices of consumer goods is far from perfect. The procedure of examining models of ultrafashionable

articles has not been worked out. As a result, trade and industrial organizations and enterprises often do not know how to approach the evaluation of an article, establish unnecessary commissions, and limit the list of fashionable goods, as a rule, to sewn goods, knitwear, and footwear. Clear concepts of "ultrafashionable" articles and "first experimental batches of goods" have not been formed to this day. The existing definition is not very specific. Without fully citing point 1.2 of the Statute on the Procedure of Setting Contractual Prices of First Experimental Batches of Goods and Ultrafashionable Articles and Differentiating Rebates to Trade Organizations approved by the decree No 725 dated 27 August 1985 of the USSR State Committee on Prices, we will only note that it states the following: Contractual retail prices are set for first experimental batches of light industry goods new in terms of their structure, design, styles, and used raw materials produced on new equipment or according to new technology, for ultrafashionable goods greatly differing in their quality from produced goods, conforming to a long-term fashion trend, executed in new stylish silhouettes, and so forth.

As practice shows, a preliminary study of the formed demand for samples of goods is the most correct method of determining contractual prices. Contractual prices should be set after the customer evaluates them. Customers' opinions and the conclusion by specialists at "Moda" stores should be the basis for the contractual price. It is advisable to make these trade enterprises kinds of laboratories for testing promising designs and centers for contacts with customers, where they could receive competent consultations on a commodity, make claims on their quality, and so forth.

For example, the Krasnodar "Moda" store opened in September 1986 has such experience. The commissioning of the "Moda" store required a new attitude toward the selection of men's and women's clothing styles. The coordination of styles with factories takes place in the mandatory presence of the artist-designer, who advises as to what extent the proposed style corresponds to the fashion trend and evaluates the success of the design, the level of technological execution, and the correspondence of accessories. The wardrobe principle of trade organization requires a new type of advertisement, where for outerwear and summer clothing styles the artist-designer selects certain types of footwear, handbags, gloves, scarves, and headgear, as well as jewelry, cosmetics, and perfumes.

In 1987 plans are made to establish in the store a "parade of mannequins," where samples of upcoming styles will be displayed 30 days before delivery. This will make it possible to study demand in greater detail and to orient the customer.

Trade and industry enterprises, which have concluded a contract, should primarily carry out the work on determining contractual prices. For this it is necessary to

abolish all kinds of commissions and traditional methods of examining and approving samples of articles. The deciding vote should belong to contracting parties with the participation of designing organizations. It is precisely designers that should say what goods are and will be in demand and form the consumption standard among the population, considering it a system of esthetic, economic, and ideological education.

Instead of the vague exposition of point 1.2 of the indicated statute, in our opinion, it is advisable to introduce the following:

to place the full responsibility for the correct setting of contractual prices of first experimental batches of goods and ultrafashionable articles on industrial and trade enterprises concluding the delivery contract. Approbation of first experimental batches in stores and information on the course of their sale should become an obligatory condition for their introduction into production as ultrafashionable articles and for setting the contractual price;

— at the same time, it is advisable to place the responsibility for the artistic-esthetic and technical level of articles on styling organizations and to bind houses of styles to advise concerned organizations and enterprises ahead of time, before the beginning of the season, of the decisions of esthetic commissions;

— to develop upcoming collections of ultrafashionable articles and to deliver single designers' samples of articles developed for the future to stores selling fashionable goods;

— to ensure the output of articles at contractual prices in full accordance with the approved standard samples according to seasons: fall-winter and spring-summer;

— significant results can be obtained by organizing in accordance with self-support principles the provision of additional services for the public, that is, packaging goods, cutting fabrics, fitting and adjusting clothes according to the figure, and so forth.

Furthermore, the mentioned statute on contractual prices stipulates that production associations (enterprises and houses of styles) can conclude contracts for the delivery of first experimental batches and ultrafashionable articles at contractual prices with several customers, including in the country's other regions.

In our opinion, it is necessary to abolish this point and thereby to make the industry and trade of a republic (ASSR), kray, and oblast dependent on the specific level of the demand formed on their territory. This will make it possible to avoid administrative methods of distribution of goods by superior organizations. The right to an independent sale and to the choice of a partner beyond the limits of a given territory can be granted only for goods manufactured in excess of trade orders provided

that the concluded contracts are fulfilled without fail. At the same time, it should be kept in mind that ultra-fashionable articles should be manufactured in single batches and in limited quantities.

Therefore, the newly introduced procedure of abolishing maximum volumes of output of batches consisting of ultrafashionable articles is not justified. It is advisable to limit them. In this case two alternatives are possible. The first lies in the return to point 1.8 of the Statute on the Procedure of Setting Contractual Prices of First Experimental Batches of Goods and Ultrafashionable Articles.

This means that the volumes of first experimental batches of goods sold at contractual retail prices are determined in accordance with the agreement between the parties, but should not exceed the following amounts (in retail prices):

- 100,000 rubles—at a contractual retail price of up to 10 rubles (inclusive) per unit of article;
- 200,000 rubles—at a contractual retail price of more than 10 rubles and up to 50 rubles (inclusive) per unit of article;
- 300,000 rubles—at a contractual price of more than 50 rubles and up to 100 rubles (inclusive) per unit of article;
- 500,000 rubles—at a contractual retail price of more than 100 rubles and up to 500 rubles (inclusive) per unit of article;
- 750,000 rubles—at a contractual retail price of more than 500 rubles per unit of article.

At the same time, it is necessary to affirm an obligatory addition that these limitations should be abolished only in exceptional cases.

The second alternative presupposes the following: Industrial associations (enterprises) within the limits of the basic plan should conclude contracts with trade organizations on the delivery of goods at stable prices. In excess of the basic plan every enterprise has the right to organize the output of goods at contractual prices. Such a procedure will become an effective incentive for accelerating the process of assortment renovation and will make it possible to create interest in the production of ultrafashionable articles.

In our opinion, this alternative is preferable, because it makes it possible to construct the system so that every enterprise is interested both in fulfilling the basic plan and in maximally increasing the output of fashionable articles.

In order to enhance the role of prices in production planning and in the sale of goods, we must direct our efforts to meeting the needs of specific social and economic population groups. Until recently average sale prices have risen owing to assortment shifts due to the lack of inexpensive varieties of certain goods on the market. An unlimited application of contractual prices

will make it possible to significantly lower the absolute volume of imbalance in supply and demand in a short time and to attain a relative structural balance. However, the solution of the problem of attaining proportionality in supply and demand should be examined not only on the basis of the present situation, but also in long-range terms. The creation of conditions, which would constantly reproduce the necessary proportions in the balance of supply and demand, is the strategic path here. Contractual prices should be only an auxiliary tool of planned price formation. An unlimited expansion of the production of ultrafashionable articles at contractual prices, along with other undesirable phenomena, can lead to the "erosion" of an inexpensive assortment of goods and to a rise in average retail prices, as it happens with articles with the "N" index.

In this case economic independence will lose its meaning, it will be impossible to save the situation even with strict requirements of contractual obligations, and economic independence will again be replaced with gross bureaucratic administration.

The decree of the CPSU Central Committee and the USSR Council of Ministers on improving the economic mechanism in light industry instructed the USSR Ministry of Light Industry in coordination with the USSR Ministry of Trade to establish in annual plans for ministries of light industry of the Union republics and for the RSFSR Ministry of the Textile Industry a plan for output in physical terms, singling out the volumes of output of goods for children, youth, and older persons according to basic price groups. This signifies an intensification in the effect of firm (list) prices on the assortment and quality of consumer goods, which form the basis for the consumption budget of the bulk of the population.

Taking into consideration the importance of the present problem of attaining a balance of supply and demand, it is advisable to see to it that in the process of planning and control over the fulfillment of plans much greater attention is paid to ensuring a coordinated increase in consumption benefits and monetary income of the population. For this purpose we should form a fund for a prompt regulation of retail prices by assigning to it a part of the capital from the amount of increments in retail prices of ultrafashionable articles with an appropriate reduction in the share of capital deducted into the budget from the amounts of the indicated increments. With the capital of this fund it will become possible to change state retail prices of individual goods and groups of goods in accordance with the changing conditions of their sale and to change intergroup correlations of prices with due regard for the differences in the consumer properties of goods.

The experience of the People's Republic of Bulgaria deserves attention in this respect. It is not accidental that in this country contractual prices are actually set only for ultrafashionable goods, "de-luxe" category goods, and new goods of small-series or individual orders.

When planning the structure of the supply of goods and their retail prices, the existence of population strata with a low, average, and high income is taken into consideration. Production and trade enterprises are ordered to ensure without fail the production and supply of cheap varieties of goods in demand by the population. The production enterprise does not have the right to reduce and discontinue the production of products without the consent of its other contracting trade partners.

In a number of socialist countries deliveries of inexpensive goods have become directive assignments of state plans.

Discussing the renovation of goods, we must not disregard so-called articles of an improved assortment with the "N" index. It is no secret that, in reality, produced goods of an improved assortment are not novelties. The assortment of these goods expands basically not through the appearance of truly new goods, but owing to their difference in insignificant details. According to the data of the RSFSR Ministry of Light Industry, on the average, 65 percent of the clothing assortment is annually renovated in terms of styles. However, the high percent does not reflect the true state of affairs. Boundaries are erased between ordinary consumer goods and improved-quality goods both in artistic-esthetic and assortment-quality indicators. Often in the total mass of goods the customer cannot distinguish an article with the "N" index by its appearance, quality of execution, marking, or packaging.

We will cite certain examples in confirmation of the above-stated.

In 1985 the Rostorgodezhda Wholesale Association of the RSFSR Ministry of Trade raised the question of a prescheduled revocation of the "N" index for 400 fabric varieties, knitwear, and footwear.

Cases of output of articles with the "N" index with low consumer properties at the Chelyabinsk Odezhda Production Sewing Association were often established. Owing to design and technological imperfections, in 1985 the "N" index was removed from five styles ahead of schedule and in 1986, from three styles. The low level of production organization was noted at the Taganrog Sewing Factory of the Rostov Outerwear Association, where owing to a deviation from standard samples and noncorrespondence of measurement data, a batch of women's coats with the "N" index was rejected completely. There is a similar situation at the Volgograd Production Sewing Association imeni 8 Marta, the Grozno Sewing Association, the Gorkiy Voskhod Association, the Tula Chayka Association, and so forth, where during checks a high percent of rejects was also noted and economic sanctions and other measures of effect were applied.

Such a, frankly speaking, harmful practice of management does not make it possible to see the true state of affairs, does damage to every member of our society as a customer, and lowers the prestige of such national economic sectors as trade and light industry. The state also incurs losses.

The fact that the output of goods with the "N" index lowers the economic efficiency of the production of ultrafashionable articles is also important. This is due to the fact that the output of first experimental batches and of ultrafashionable articles requires considerable additional material and labor expenditures, because the volumes of their output are comparatively small. Furthermore, increased requirements are placed on such goods. With regard to deductions into the fund for paying bonuses for the production of goods at contractual prices, they are the same (15 percent) as for the production of goods with the "N" index.

The situation is aggravated by the fact that in accordance with the Statute on Contractual Prices articles with a smaller amount of additional profit (less than 15 percent at a retail price of up to 100 rubles and 10 percent at a retail price of more than 100 rubles) are not included in ultrafashionable articles. Furthermore, during the sale of goods at contractual prices industrial enterprises should give stores an additional rebate at the expense of additional monetary income.

Nor are trade enterprises sufficiently interested in the sale of ultrafashionable articles. When contractual prices of these goods are set, trade organizations are given increased rebates (up to 50 percent) from the list price, which, in fact, are used basically for a discount for goods not in demand. In order to interest trade in speeding up the sale of fashionable goods and improving the trade process, it is advisable, on the whole, to agree with Ye. Rumyantsev's opinion and, instead of the existing procedure, to establish a procedure under which the additional part of the rebate to trade organizations will be purposefully distributed as follows:

- 70 percent—into the fund for discount in trade;
- 15 percent—into the material incentive fund for trade workers for speeding up the sale of articles;
- 15 percent—for advertisement during the sale of first experimental batches and ultrafashionable articles (1).

To be sure, these measures will increase the interest of trade in augmenting the sale of fashionable goods and in speeding up the renovation of the assortment of articles.

It should be stressed that the implementation of these measures is possible, first, only if the output of goods with the "N" index is abandoned decisively, as was done with the State Badge of Quality for light industry articles. Here we should not limit ourselves to specific measures and to an improvement in individual elements of the

procedure of establishing the "N" index, because we face the task of ensuring a real improvement in the assortment of consumer goods in accordance with the needs of the Soviet people.

Second, instead of the "N" index, as well as the existing instruction concerning temporary prices of improved-quality, new consumer goods, it is necessary to approve a standard document (all-Union state standard) for goods newly introduced into production. This document should specify the criteria of evaluating the novelty and quality of articles, maintaining the precise requirements on the quality of these goods previously established for products with the State Badge of Quality. It is also necessary to establish a products list, excluding from it articles not complex in production, primarily the simplest sewn articles, knitwear, and types of fabrics that are raw materials for sewing, footwear, furniture, and haberdashery industries.

Third, industrial enterprises should not receive additional profit, deductions, and incentives for what they are obligated to do—produce products in their assortment and quality conforming to the population's requirements. The qualitative characteristics of products should be inherent in the indicated standard document. As a consequence, work on certain standards and rates without any additional incentives for it is the natural situation.

Finally, a consistent line should be clearly followed from first experimental batches to ultrafashionable articles manufactured in small series, or from experimental batches to mass goods available to the entire population, conforming to the fashion trend, and, to be sure, of the proper quality.

In our opinion, the indicated measures conform to the present stage in restructuring management methods. Prices become more mobile and flexible, make it possible to promptly change the production, procedure, and conditions of the sale of goods, and contribute to a fuller satisfaction of the demand.

#### Footnotes

1. Ye. Romyantsev, "Price Formation and Fashionable Goods," *Sovetskaya Torgovlya*, 1986, No 1, p 15.

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"Sovetskaya torgovlya", 1987.

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#### Gossnab Specialist on Developments in Consumer Cooperatives

18270002 Moscow

MATERIALNO-TEKHNICHESKOYE

SNABZHENIYE in Russian No 7, Jul 87 pp 39-42

[Interview with Boris Petrovich Malyutin, USSR Gossnab chief specialist: "Cooperative Forms Based on Cost Accounting, Self-Support, and Self-Financing"; date and place not specified]

[Text] Cooperative forms of customer service are today a most important area of economic activity which are appreciably improving satisfaction of the public's demand for many goods and services. The first cooperatives, though few in number and largely experimental, have already won a deserved popularity. But in the process of their creation a multitude of questions have been generated on the one hand by the newness of the problem and the other by the absence or deficiency of information about legal regulation of their activity.

The main headquarters of USSR Gossnab, its local regional agencies, and the editors of our journal have been receiving numerous letters filled with a desire to know as much as possible about certain "secrets" of organizing a cooperative service center. To be specific, in the last issue of the journal labor veteran L. Bekkerman expressed his bewilderment as to why most cooperatives are turned toward the secondary resources of industry, not toward collecting waste from individuals, and whether it is sensible to restrict these collective enterprises to a small number of members? After all, normal production activity requires a chairman, his deputy, superintendent [zavkhov], bookkeeper, lathe operator, and so on. The author asks whether a small cooperative can support them?

Boris Petrovich Malyutin, USSR Gossnab chief specialist, answers these and other questions.

[Answer] I would immediately reply that the respected labor veteran is not altogether right. In actuality there are no priorities at all, much less an orientation toward secondary resources of industry. All the cooperatives are oriented toward collecting waste and secondary raw materials from various sources, including individuals. But today far more raw materials of various kinds are being collected in the country than is required. The existing production capacities are unable to process them. So much waste and scrap of all kinds have been collected, that even now the stockpiles have reached the critical point. That is why principal attention is being turned not so much to collecting raw materials and various scrap as to processing them with internal resources and producing goods for the public and products for enterprises.

It is natural that under these conditions the cooperative members would follow the line of "greatest advantage"—of collecting and processing industrial waste,



since it is the most homogeneous and simpler to use. But wherever there is a shortage of secondary raw materials, the cooperators have stepped up their collection from individuals.

The answer to the second question is a simple one. Limitations to 50 persons have been envisaged for cooperatives engaged in collecting and processing secondary raw materials. There were no economic or other reasons for this. The specialists simply calculated that this was the optimum size that would show the greatest mobility in organizing collective work. But there is no point in talking about abolishing the restrictions today, if only because not a single one of the cooperatives operating in the country has reached that size or even come close to it.

I think that these restrictions will be removed as the number of cooperators increases at any enterprise and as it becomes economically feasible to expand its activity.

Especially since in new cooperatives for food service, services, and production of consumer goods the upper limit on the size has been removed. The principle lies in a different approach. Everyone in cooperatives must work—that is their profound ethical purpose and to some degree advantage, since they do not generate a managerial apparatus. All the managerial and staff service duties (chairman, deputy chairman, bookkeeper, supply person, and so on) become responsibility of one or two members of the cooperative for additional pay or persons from outside (parttime) on the basis of a work agreement. The basic organizational, managerial, and supply functions are performed through the agencies of USSR Gossnab.

[Question] From the legal standpoint how does one interpret the principle of setting up cooperatives specifically related to a regional agency of USSR Gossnab?

[Answer] In August 1986 USSR Gossnab was extended the monopoly right to set up cooperatives for the collection and processing of secondary raw materials affiliated with its regional agencies. In addition to that right the committee's agencies were given direct responsibility for organizing the effort, for extending to the cooperatives procedural assistance on legal, financial, labor, and other matters, and also for monitoring their activity.

Regional agencies of USSR Gossnab are called upon to ascertain the feasibility of setting up a cooperative operating in a particular direction and if necessary to go before ispolkoms of soviets of people's deputies to urge them to register or liquidate a cooperative.

The registered secondary raw materials cooperative is considered an absolutely independent juridical unit, it has its own balance sheet, its own stamp, its own account in the bank, it independently plans its operational activity, and it is not a structural component or enterprise subordinate to the regional agency.

It follows that the regional agency performs the role of organizer and patron of the cooperative, what you might call an older comrade. Its purpose is to set the cooperative on its feet, to teach it to walk correctly, and to operate beneficially for the collective and for the national economy.

The secondary raw materials cooperative is mainly supposed to collect waste and types of secondary resources, to process them, and manufacture consumer goods and products for industrial and technical purposes which it then sells.

Setting up a cooperative affiliated with the regional agency does not at all mean that it must operate under contracts only with particular enterprises in our system. The cooperative can enter into contractual relations with any enterprise and organization (and even with several at the same time). And, of course, that would include any cost-accounting procurement organization in the system of USSR Gossnab.

Thus the secondary raw materials cooperative is created, and perhaps it would be even more correct to say shaped—only in affiliation with regional agencies of USSR Gossnab. But in the course of its operations it can interact (conclude contracts) with any enterprise and customer.

The volume of jobs performed or products produced by the cooperative are credited to fulfillment of the planning targets of that organization with which it has contractual relations. Those figures are credited to the regional agency or more accurately its subordinate organizations only in cases when contractual relations exist between them and the cooperative.

In February 1987 a decision was adopted to set up cooperatives for production of consumer goods, which again mainly use waste and local resources as raw materials. By contrast with the secondary raw materials cooperatives, these cooperatives may be set up in affiliation with enterprises and organizations of any ministries and departments regardless of the nature of their principal activity. As a rule they do not engage in collection and must produce only consumer goods from waste and local raw materials. Cooperatives of this kind can, of course, be created in the system of USSR Gossnab as well. The volume of goods or output produced by these cooperatives are included on the same principle in reports on plan fulfillment.

A decision was also adopted to create another two lines of cooperative effort: in the sphere of food service and consumer services. To be sure, the former can be created only in affiliation with trade and food service enterprises and organizations, including departmental or internal food service. The cooperatives for consumer services for the public, on the other hand, may be created in affiliation with associations, enterprises, and organizations of all ministries and departments regardless of the nature of

their principal activity. When there is a need, a realistic opportunity, and mutual consent cooperatives of these kinds could find application in the system of USSR Gossnab.

[Question] What is the significance of the stamp of the secondary raw materials cooperative? Who has the right to certify the signature of the disburser of funds within the cooperative?

[Answer] So far there has been no straightforward regulation of the content of the inscription on the stamp of the cooperative nor on its format. In fact this is hardly necessary.

But there is an invariable condition: the stamp must contain the name of the cooperative (for example, the cooperative "Kristall," the production and procurement cooperative "Mechta," and so on). And there must also be the name of the regional agency with which it is affiliated (Nizhnevolgglavsnab or the Oka Valley Main Regional Administration of USSR Gossnab, etc.). In a number of places additional information is used to indicate the city where the cooperative operates or the number given the cooperative, etc.

The decision on the format of the stamp (in the form of a crest or an ordinary round stamp) is taken locally in accordance with the requirements of financial agencies and the procedure established by agencies of the Ministry of Internal Affairs. In addition to the round stamp, it is also advisable to make provision for an angular stamp as well as a canceling stamp. (For example, "Paid," and so on).

The organization with which the cooperative is affiliated—the regional administration or by its order a trust (association) for secondary raw materials (resources) applies to agencies of the Ministry of Internal Affairs about manufacturing the stamps. These agencies have the right to check the signature of the person disbursing funds in the cooperative.

[Question] What sort of legal norms and business principles should collectives of newly created cooperatives be guided by?

[Answer] First, cooperatives are created on the initiative of individuals and in view of the proposals of regional agencies of USSR Gossnab, and they operate on the basis of full cost accounting, self-support, and self-financing. They independently draft and approve the plans of their operation, they perform their activity on the basis of contracts with enterprises and organizations in the system of USSR Gossnab and other sectors and branches.

Cooperatives are registered with ispolkoms of soviets of people's deputies where they are located. The latter are required to assist cooperatives in acquiring raw materials

and supplies, in organizing the sale of goods and services, and they must also recruit enterprises and organizations to become involved in this effort.

Should they operate at a loss neither the state nor enterprises and organizations with which cooperatives have contractual relations bear liability. The collectives who are unable to operate on the principles of self-support and self-financing are subject to being dissolved.

Their activity is regulated by the "Model Bylaws of the Cooperative for Collection and Processing of Secondary Raw Materials Affiliated With Regional Agencies of USSR Gossnab." The basis for establishing contractual relations concerning the questions of collection, processing, and delivery of secondary raw materials and products manufactured from them is the "Model Contract" approved by USSR Gossnab, USSR Minyust, and USSR Gosarbitrazh on 15 September 1986.

Many cooperatives have from the very beginning found the right direction in meeting the public demand for the most diverse goods. The products being produced by cooperatives from waste already includes a broad assortment of consumer goods (footwear for children and adults to be worn in the home and on the beach, jewelry, souvenirs, toys, building materials, household items, sewn garments, and many other things) in addition to products for production and technical purposes.

Their number is growing steadily. In April the number of cooperatives registered already exceeded 270. Steps are being taken to create at least 10 such cooperatives this year in every republic, kray, and oblast.

And one other significant point—the cooperatives seem to arouse the initiative and hidden abilities of many people and have given rise to a multitude of interesting organizational ideas and technical and technological solutions aimed at satisfying the customer's needs.

To some extent the results achieved have helped to spread the cooperative movement in the spheres of food service, services for the public, and production of consumer goods. All cooperatives have their own unique functions, the methods of solving many problems differ, even though the ultimate aim is the same. That is why the decisions that have been taken make provision for several distinctive conditions of the activity rather than for "secondary raw materials cooperatives" as such.

[Question] As is well known, there have been several additions to the drafting of the decree of the USSR Council of Ministers dated 14 August 1986 and entitled "On Organizing Collection and Processing of Secondary Raw Materials on a Cooperative Basis." What have they specifically been?

[Answer] First of all, they eliminated the condition requiring enterprises and organizations to turn over to regional agencies of USSR Gosnab the space, equipment, transport, and materials necessary to organize the cooperatives. Now questions concerning the entire list of material and technical wherewithal classified as fixed capital are decided directly by the enterprises and organizations concluding a contract with cooperatives.

The bodies and agencies supplying cooperatives with the necessary material wherewithal, including space and transportation equipment, include ispolkoms of local soviets of people's deputies.

The supplements contain a revision to the effect that not only the work performed by cooperatives, but also the products they produced are credited to fulfillment of the planning targets assigned to enterprises and organizations concluding a contract with a cooperative. The specific implementation of this principle will make it possible to expand the network of cooperatives and to substantially increase the assortment of goods they produce.

The conditions under which cooperators themselves set prices for selling secondary raw materials and the products they produce are becoming much more varied. Significant corrections have been made in the proportions of the income tax which go to the local budget. In actuality it has been reduced to between one-third and one-fourth of what it was. The specific purposes have been stated for use of the resources left at the disposition of the cooperative after it has made its obligatory payments. These are the deductions for remuneration of labor, transfers to the development fund, and also the contingency fund, whose purpose is to cover unforeseen expenses, including losses and debts should the cooperative be liquidated. The minimum size of these funds will be fixed on a centralized basis.

Retail trade agencies, regardless of their departmental subordination, have been extended the right to sell to cooperatives for cash the goods they need for their activity and enterprises and organizations have been granted the right to manufacture various articles and parts and provide transportation services and to do the necessary repairs. This will, of course, make it possible to substantially expand the possibility to supply cooperatives more fully with the materials, equipment, and services they need.

The condition has been abolished whereby credits for extending advances to cooperatives would be granted through regional agencies of USSR Gosnab as well as through enterprises and organizations concluding a contract with them. Now branches of USSR Gosbank will issue the credits directly to the cooperatives and their customers. They may obtain both short-term credits for

current purposes (acquiring working capital, the purchasing or procurement of raw materials, outlays related to production orders), as well as long-term credits to cover the costs of building up fixed capital (above all to acquire equipment).

In performing its tasks the cooperative may use the tools and vehicles, equipment, and space at the personal disposition of cooperators with appropriate compensation.

The new decree spells out the right of individuals to work in cooperatives in the time they are free from their principal job. The document states that the restrictions established by the legislation for holding more than one job are not applied in this case.

And finally, the age limit on membership in the cooperative has been dropped to 16, which serves as the legal basis for hiring to work in it students in the upper grades of secondary schools, vocational and technical schools, and *tekhnikums*.

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07045

**Gospriyemka Results in Textile Industry Observed**  
*18270001 Moscow TEKSTILNAYA*  
*PROMYSHLENNOST in Russian No 8, Aug 87*  
*pp 31-32*

[Article by G. A. Lavrentyev, acting chief of the Administration of the Textile and Light Industry of the USSR State Committee for Standards, candidate of technical sciences: "Enterprise Work Under Gospriyemka Conditions"]

[Text] As of 1 January 1987 *gospriyemka* was introduced at 64 enterprises of the system of the USSR Ministry of Light Industry producing about 10 percent of the total volume of output. They include 21 textile enterprises manufacturing cotton, wool, silk, and linen fabrics different both in their function (coat, suit, raincoat, shirt, and underwear fabrics) and in the applied types of raw materials, as well as sewing threads.

In order to prepare enterprises for the changeover to the new system of product quality control, *gospriyemka* was introduced beginning in October 1986 in stages. In October the products presented by enterprises to *gospriyemka* were supposed to make up 25 percent of the total volume of output. In November this indicator was to be increased to 30 percent and in December to 70 percent.

Some enterprises submitted products in a much lower volume than the approved one (the Darnitskiy Silk Combine imeni 60-Letiya Velikoy Otkryabskoy Sotsialisticheskoy Revolyutsii, the Kostroma Flax Combine

imeni I. D. Zvorykin, and the Alma-Ata Cotton Combine imeni 50 Letiya Oktyabrskoy Revolyutsii). Some managers of associations and enterprises, as well as of a number of ministries, incorrectly evaluated the situation and, instead of preparing for gospriyemka, urgently demanded its abolition or postponement, or at least a reduction in the volumes of accepted products.

Therefore, in October and November 1986 the volume of output presented by the sector's enterprises to gospriyemka made up 12 and 14 percent respectively, but in December, only 42 percent. During the fourth quarter of 1986 only 65 percent of the output was accepted on the first presentation and at some enterprises this percent was much lower (for example, at the Shuya Production Weaving and Finishing Association, 38.1 percent).

At the preparatory stage gospriyemka uncovered breaches of technological discipline, a lack of receipt control over raw materials, supplies, and auxiliary textile substances in a number of cases, and a low-level condition of basic technological equipment.

At some enterprises technological documents were not brought into conformity with the requirements of standards and standard technological regimes. Cases of breaches of technological discipline were tolerated. The work of technical control departments was not reorganized everywhere during that period. Basically, restructuring in this sphere was limited to the introduction of the post of deputy director for quality. Receipt control remained at a low level and an insufficient staffing of control departments with highly skilled workers was felt.

An analysis of the work of enterprises during the first quarter of 1987 showed that the average percent of the volume of output presented to gospriyemka made up 90.2 percent in January, 91.6 percent in February, and 93 percent in March, whereas all the products produced by enterprises should be presented to gospriyemka bodies for an evaluation of their quality.

The average proportion of the output accepted by gospriyemka on the first presentation made up 85.1 percent in January, 82.5 percent in February, and 86.8 percent in March. At some of the sector's enterprises during the first quarter of 1987 this indicator made up 60 to 80 percent (the Chernogorsk Production Worsted Cloth Association, 67.1 percent and the Kostroma Flax Combine imeni I. D. Zvorykin, 75 percent).

However, where there was a serious attitude toward the preparatory stage of work under gospriyemka conditions, the proportion of products accepted on the first presentation was much higher (the Fine and Industrial Cloth Combine imeni E. Telman, 95 percent and the Chaykovskiy Silk Fabric Combine imeni 50-Letiya SSSR, 92.5 percent).

At the same time, with the introduction of gospriyemka the output of first-grade products decreased (as compared with the same period of last year and planned indicators). For example, at the Leningrad Spinning Thread Combine imeni S. M. Kirov during the first quarter of 1986 this indicator made up 99.6 percent, but in 1987, 97 percent, and at the Shuya Production Weaving and Finishing Association, 92 and 86.2 percent respectively.

At some enterprises such a situation is attributed to the fact that gospriyemka representatives have made more exacting demands to fulfill regulated quality indicators, to observe parameters of technological processes, to remake returned products at the culprits' expense, and to toughen interoperational control.

It must also be noted that at many enterprises finished products are presented to gospriyemka irregularly: during the first 10-day period of the month, 20 to 25 percent and during the third, 40 to 45 percent (the Leningrad Spinning Thread Combine imeni S. M. Kirov, the Kostroma Flax Combine imeni I. D. Zvorykin, and so forth).

In a number of cases superior organizations establish for enterprises a plan for the output of first-grade products, which is lower than the plan actually attained in 1986.

For example, at the Shuya Production Weaving and Finishing Association during the first quarter of 1986 this output made up 92 percent, but during the same period in 1987, 86.2 percent (86.2 percent was planned); at the Dushanbe Production Cotton Association 84.8, 61.2, and 80 percent respectively; at the Chernogorsk Production Worsted Cloth Association, 76, 68.5, and 69.5 percent; at the Kostroma Flax Combine imeni I. D. Zvorykin, 97.6, 89.1, and 95.3 percent.

The work of technical control departments is being reorganized at all enterprises. However, the set of organizational, economic, and educational measures has not been brought into conformity with the recommendations of the decree of the CPSU Central Committee and the USSR Council of Ministers "On Measures for a Fundamental Improvement in the Quality of Output."

The developed and approved statutes on awarding bonuses to technical control department workers often do not fully stimulate strict control over the quality of finished products. At the Darnitskiy Silk Combine imeni 60-Letiya Velikoy Oktyabrskoy Sotsialisticheskoy Revolyutsii the amounts of bonuses for controllers at technical control departments do not depend on the volume of output accepted by gospriyemka on the first presentation and at the Chernogorsk Production Worsted Cloth Association bonuses are paid depending on the volume of checked output.

With the introduction of gospriyemka control over the quality of output and a strict observance of the technological process intensified and the need for a sharp improvement in the quality of execution of work methods and a reduction in the number of combined operations increased. This affected the economic indicators of enterprises. At some of them labor productivity and average wages decreased and expenditures on the maintenance of equipment rose.

At the same time, tendencies toward an improvement in the quality of manufactured goods began to appear during the first quarter of 1987. For example, the quantity and volume of output, against which claims were made, decreased sharply as a result of the order introduced into the work of enterprises on observing technological discipline, reducing the number of production defects, and improving the commodity appearance of articles.

Receipt control over raw materials and supplies has improved at all enterprises. More effective relations with suppliers are being established. To influence suppliers of low-quality raw materials, supplies, dyes, and auxiliary textile substances, gospriyemka workers actively use the rights of territorial bodies of the USSR State Committee for Standards. However, despite the significance of gospriyemka as the most important political, social, and economic measure, active help is not given to enterprises operating under new conditions. For example, the RSFSR Ministry of the Textile Industry did not provide the following enterprises with the necessary raw materials, dyes, and auxiliary supplies: the Flax Combine imeni I. D. Zvorykin, the Zarya Sotsializma Flax Combine, the Chaykovskiy Silk Fabric Combine imeni 50-Letiya SSSR, and so forth.

Obsolete and worn out equipment is replaced at extremely slow rates at a number of enterprises. For example, at preparatory and finishing production facilities at the Alma-Ata Cotton Combine imeni 50-Letiya Oktyabrskoy Revolyutsii up to 60 percent of the equipment has been in operation for about 20 years. To this day the USSR Ministry of Light Industry has not allocated roving equipment to the Tbilisi Sovetskaya Gruziya Worsted Cloth Combine. The combing machines (24 units) installed at this combine are worn out and their replacement is planned only in 1988-1989. It is necessary to replace the engraving equipment at the Dushanbe Production Cotton Association. This is the second five-year plan during which the USSR Ministry of Light Industry has been solving the problem of its allocation. At the finishing production facility of the Shuya Production Weaving and Finishing Association about 70 percent of the equipment has been in operation for 30 years and longer and four (out of the 11 installed) printing machines are equipment from the beginning of the century.

Obsolete and worn out equipment is used at the Darnitskiy Silk Combine (especially at the dyeing and finishing shop), at the Riga Rigas Audums Production Silk Association (at weaving and finishing production facilities),

at the Kostroma Flax Combine imeni I. D. Zvorykin (at the finishing production facility), and at the Yerevan Silk Combine (silk reeling apparatus).

The problem of metrological support for production has not been solved for a long time. A significant number of enterprises do not possess the necessary measuring and testing facilities. More than 1,500 instruments are needed to equip technological processes at the Alma-Ata Cotton Combine imeni 50-Letiya Oktyabrskoy Revolyutsii alone. At the Shchekino Production Silk Association imeni V. I. Lenin drying and stretching stabilization apparatus have no speed controlling instruments, which has a negative effect on the quality of finished products. Some of the instruments used at enterprises are not fit for operation (they have not been checked or are defective).

The USSR State Committee for Standards considers it advisable for the USSR Ministry of Light Industry, the RSFSR Ministry of the Textile Industry, and ministries of light industry of the Union republics:

to activate the work on controlling and providing effective assistance to enterprises transferred to gospriyemka, thereby assisting in ensuring the output of high-quality products;

to draw attention to the fact that technical control departments are not staffed with highly skilled specialists, to the formal approach to the certification of technical control department workers, to the essential participation of gospriyemka workers in recertification, to the insufficient level of receipt control over raw materials and supplies, to the low technical level of the technological equipment in operation, and to the weak metrological support for enterprises.

**From the editorial department:** Taking into consideration the importance of the problem raised in the published article, the editorial department sent it to the USSR Ministry of Light Industry, requesting for our readers a pointed answer to the questions set forth.

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11439

## FOOD PROCESSING, DISTRIBUTION

### Deficient Technology in KaSSR Canning Industry Noted

18270010 Moscow IZVESTIYA in Russian 13 Oct 87  
p 2

[Article by V. Ardayev, IZVESTIYA correspondent: "Canned Goods and Reserves"]

[Text] Only one figure: Kazakhstan, on a sizable part of whose territory it is possible to grow and obtain high fruit and vegetable harvests, is forced to bring in more than 70

percent of the total canned fruit and vegetable output from outside the republic's boundaries. It is not only that the capacity of 7 processing enterprises and 40 shops on farms is obviously insufficient... All the sector's problems are reflected, as in a drop of water, in the work of the largest one—the Alma-Ata Fruit Canning Plant, which now produces one-third of all the canned goods produced in the republic.

It so coincided that on the day of my arrival at the plant unpaid mass work was in full swing throughout the city.

The enterprise territory is crowded. In the raw produce shop under clouds of steam women stand at the conveyor, sorting vegetables manually, filling 3-liter cans with them, and turning heavy metal boilers by means of antediluvian lever devices. In the yard a group of medical surgeons from the city clinical hospital clean Bulgarian pepper pods with professional refinement, their white caps and gowns stressing the sad humor of the situation.

"Despite the reconstruction carried out at the enterprise, as before, heavy manual labor predominates at it," plant director G. Yusupov explains.

A little history. The Alma-Ata Fruit Canning Enterprise is not only the largest, but the oldest, enterprise among allied enterprises in Kazakhstan. In the summer of this year it observed its semicentennial anniversary. In 50 years the plant's initial capacity was exceeded more than 20-fold! And this without an increase in the size of production areas. At one time it was outside the city boundaries, but eventually it turned out to be in a lively part of the city surrounded by a crowded residential block. The enterprise's transfer outside the city was deliberated for quite a long time and, while this was being decided and coordinated, it continued to live without technical retooling and improvement of production.

New capacities for the processing and output of 20 million standard cans of tomato products have now been put into operation here. Later they were supplemented by a Yugoslav line capable of receiving 550 tons of tomatoes in 24 hours. A semiautomatic line for the output of tin cans has been installed in the new shop. "Intelligent" mechanisms stamp, cut, bend, and seal the shiny metal. The more modern all these plant innovations seem, the sadder the lag of old production against their background.

"The low level of mechanization and automation of labor intensive processes in the processing industry is not only the trouble of the Alma-Ata Plant," says A. Karapetyan, deputy chief of the Main Administration for the Production and Processing of Potatoes and Vegetables of the Kazakh SSR Gosagroprom. "This is the sickness of the sector as a whole. Yes, we receive and install modern—as a rule, imported—flow lines at enterprises. But we cannot replace people at some, even

extremely primitive, operation with an individual machine or automatic device, because neither the enterprises of the Ministry of Machine Building for Light and Food Industry and Household Appliances, nor of any other machine building ministries, produce or even develop such equipment. Apparently, the fruit canning industry does not exist at all for our domestic designers! It turns out that everywhere at the plant there is a "living temporal relationship": The new and, as a rule, imported is next to ours, which is antiquated and obsolete. In addition to the construction of new shops, it is also necessary to reconstruct old ones..."

There is another way out in order to avoid "peak" situations—to place the bulk of the raw materials in storage and then to process them during the entire year. However, the shortage of storage facilities prevents this—they have to be leased on agroprom farms. There are very few farms where it is possible to lease a "superfluous" warehouse area, because they themselves do not have it. True, a new storage facility—sparkling with stainless steel, with a heater made of polyurethane foam, built by a super-speed method almost in a week—has now appeared on a site at the Alma-Ata Plant. However, it is the only one and it will hardly solve the problem. There are no vacant areas on the utterly crowded plant territory for the construction of other facilities.

In order to more efficiently utilize existing warehouse premises, it was decided to introduce an advanced method of container storage and transport of finished products. In addition, convenient metal containers help to get rid of traditional packaging materials—unattractive wooden boxes, which inevitably loom like Kazbek and Everest mountains in the yard of any such enterprise. A special problem does not arise with the manufacture of containers—the subsidiary shop of the Talgarskiy Sovkhoz makes them. It turned out, however, that only 108 out of the 300 fruit and vegetable stores in the capital can accept products in such a form. The others have neither mechanisms, nor special areas, for this.

As we see, the sector has enough problems. Unpaid mass work done on Saturdays and Sundays and a seasonal enlistment of additional workers from other enterprises are no more than patching up Trishka's caftan. A more fundamental and long-term restructuring of all work in a modern way is hampered by the abundance of all possible "minor" difficulties, which, following the indisputable law of transition of quantity into quality, have pushed the matter to a dead end.

"Last year at the cost of incredible efforts we managed to increase fruit and vegetable processing volumes by one-third," says T. Sadykulov, deputy chairman of the Kazakh SSR Gosagroprom. "This year we plan to produce 300 million standard cans of canned goods with a plan of 243 million. However, the shortage of raw materials hampers us. For example, now, a long time

before the harvest, the Alma-Ata Oblast Executive Committee envisages allocating in a planned manner for the fruit canning industry 12,500 tons of raw materials less than their capacities permit. Such a story is repeated annually. For example, last year the Alma-Ata Fruit Canning Plant had to pay an exorbitant price for cherries to its own supplier—the Kazakhstan Sovkhoz—which sold surplus cherries to the population directly in the orchard.

The USSR Gosagroprom is perfectly well informed of the state of affairs in Kazakhstan.

"Oblast authorities often understate the volumes of raw material deliveries. This is understandable. After all, it is much more convenient for them to send fruits and vegetables to stores and even markets than to the fruit canning plant, from where products will then be dispatched outside the oblast's boundaries," says V. Nesterkin, chief of the Subdepartment for the Production of Canned Goods and Potato Products of the USSR Gosagroprom.

"In the opinion of processors this is a localistic tendency. However, farms are also right, because they are now free to decide whether to ship cucumbers to the market, or to the plant. This conflict will stop if new production structures are formed, in which the economic interests of farms and of plants are interconnected, the same. This will also make it possible to change the idea of the sector as processing only what is left from the harvest. We do not deal with the utilization of surplus products—we produce food products."

In general, these thoughts are good, correct. However, this is what puts us on the alert: The Gosagroprom somehow prefers to talk more and more about what is planned to be done than about what has already been or is being done. A program for improving the work of fruit canning enterprises, where measures for Kazakhstan have also been envisaged, has been developed. In particular, it is planned to organize extensive cooperation with the machine building industry and, as a result, to produce the necessary modern equipment. Long-term planning is a good thing. However, is the path from intentions to action not too long, taking the sector's deplorable state into consideration? And how much can the entire blame be put on the "heavy heritage"—the Ministry of the Fruit and Vegetable Economy, which relinquished its powers a long time ago?

In fact, it is high time for the fruit canning industry to become the main, not subsidiary, link of the agro-industrial complex. Fruit and vegetable canning makes it possible to deliver all-year round products rich in vitamins to trade and to supply them to regions, where it is impossible to grow fresh fruits and vegetables. However, if that's the way things are, the sector's managers should first and foremost be concerned with the quality and assortment of products, not with processing volumes or gross output. To this day about 70 percent of the canned

goods of the Alma-Ata Plant are tomatoes in all forms: canned and marinated tomatoes, tomato juice, tomato paste, tomato sauce, and tomato puree... You will agree that this even sounds much less attractive than, for example, strawberry confiture or apricot jam.

The sector needs changes. Workers at Kazakhstan's fruit canning enterprises need them. All those for whom their products are intended need them. The tangle of knotty problems accumulated for years fully lends itself to a resolution and a great deal can also be done in the republic itself. With regard to the position of USSR Gosagroprom workers, even the most detailed knowledgeability and concern in words is not yet action itself. It is not enough to know—it is necessary to act.

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## GOODS PRODUCTION, DISTRIBUTION

### Steps to Balance Consumer Trade Demand Advised

18270078 Moscow *EKONOMIKA I MATEMATICHESKIYE METODY* in Russian No 2, Mar-Apr 87pp 263-270

[Article by I.L. Lakhman: "Economic Incentives for Meeting Consumer Goods Demand"]

[Text] The new revision of the CPSU Program notes that "meeting in full the growing consumer demand for a wide variety of high-quality goods is a task of top-priority importance" ("Materialy XXVII syezda KPSS" [Materials of the 27th CPSU Congress], Moscow, Politizdat, 1986, p 152). Resolution of this task assumes, on the one hand, thorough study of the constantly changing structure of the effective demand and of people's needs and, on the other, development of an economic mechanism which will ensure the material interest of production association and trade organization collectives in meeting them.

As biosocial entities, people possess a complex of functional requirements which are in a process of continuous development and enrichment. The striving to meet them ever more fully serves as a powerful stimulus to the forward march of science and engineering, to expanding and perfecting production, and to improving the social, economic, ecological and other conditions of the activity of society.

People's functional requirements are met by acquiring, consuming and using specific goods, which are thus transformed into concrete demand. By creating and offering ever-newer products which raise the satisfaction of human needs to a higher qualitative level, production generates mass demand for the corresponding good. K.Marx called it the social demand for each particular kind of product (K.Marx, F.Engels, "Soch." [Works], Vol 25, Part II, p 185-186).

The specific task of quantitatively evaluating social needs, the achieved level of satisfaction of those needs, and the steps needed to meet them more fully arises at every stage of planning and managing the country's social and economic development. That task obviously does not lend itself to formalized resolution, since there are no formal methods of establishing the extent to which the demand for any given good has become large-scale and society-wide. From the moment the first runs of a product (good) reach the market to the shaping of a social demand for it, there must be a period of setting up its more or less extensive production and mastering by a significant part of the populace with funds available for its acquisition.

It is important to stress that social demand is not some long-range, future demand, but is expressed in a standard of living which has evolved and been achieved in society and which has become quite customary, one associated with a certain set of material and spiritual goods. However, the actual level and structure of production by no means always ensure full satisfaction of the social demand. At any given time, the demands of some segment of society for specific goods and services will remain unmet.

Family groups with the highest incomes can provide sufficiently substantive information about the level and structure of the social demand for a given period. Their consumption is a kind of standard or social norm towards which other population strata and groups strive. In a conversation with the author, M.A.Mozhina and N.M.Rimashevskaya suggested an interesting approach to determining the quantitative characteristics of social demand. They think that approximately one-tenth of the population, that possessing the highest income, is families whose consumption can be taken as shaping social demand. That particular segment is singled out because, due to the steady growth in its income, first of all, it consistently represents the development of demand in a dynamic, and secondly, it is sufficiently large that it appreciably influences how demand is shaped in the remaining population groups and strata.

Taking these considerations into account, the relationship between the average level of consumption (or availability, if the reference is to durables) of any given good by all families not in the high-income group due to the size of their incomes and consumption by that particular group is a close approximation of the degree of satisfaction of the social demand for that good. This method of determining the degree of satisfaction of the social demand for goods is better substantiated than the method of calculating it by comparing the average actual availability (per 100 families or 1,000 residents of the country or of an individual region) with an a priori norm.

We know that, given the existence of commodity-monetary relations, the social demand for various goods is met by satisfying the effective demand, that is, it is very

closely dependent on the dynamics and differentiation of the monetary incomes of the population, on the system of prices for goods and services which has developed, and also on a number of other socioeconomic factors. But the dynamics of income and price themselves depend on production development, increased labor productivity and increased economic efficiency, in a normally functioning economy.

So the categories of "social demand" and [effective] "demand" can be "arranged according to role." The former determines the overall scale of the demand for a given specific good which has taken shape, become widespread, or the reverse, diminished, and consequently reveals the potential which has developed for its consumption by the populace. The second is a more "operational" category in that demand serves as an immediate reference point for increasing or decreasing the production of a specific good under a given set of conditions as a reflection of change in social demand, income, price, and a number of other socioeconomic factors. Of course, in order to be a reliable production reference point, demand must be determined quantitatively. However, even that is not a simple task, due to the fair amount of uncertainty involved. It is therefore unrealistic to count on absolute accuracy in forecasting it.

As is correctly noted in (1, page 72), "when people consistently work with absolute 'confidence', the forecast slips out of the field of scientific knowledge into the area of fortune-telling, and that method is incompatible with scientific forecasting." The goal of scientific demand forecasting is not to determine absolutely "accurate" figures, but foremost to reveal trends, to discover shifts in consumer behavior at the proper time and work out steps taking them into account when shaping plans for supplying goods. Inasmuch as it is the demand for individual types of goods which is most dynamic, this is precisely where we need to be able to discover changes in market conditions promptly and avert the formation of scarcities of some goods and surpluses of others. At the same time, mistakes have been caused by insufficiently deep penetration into the essence of the processes which are occurring. Thus, it is widely known that when a good which has been in short supply for a more or less long time appears on the market, the demand for it is higher than normal for a certain period, that is, higher than when supply and demand are balanced. This naturally distorts the true picture of the market for that particular good. And if the reason for this situation is not revealed and if production dynamics are not adjusted, market saturation will in time occur, marketing will be slowed, and excessive inventories will develop.

Prompt discovery of real trends requires a corresponding level of skill which permits the researcher to avail himself of modern methods of analysis, as well as a certain "commercial intuition." So analysis of changes in the increment in sales (instead of increments in individual values or absolute amounts) can serve as a



tool for revealing trends in the development of demand for individual goods, as it permits a more accurate reflection of the changes which are occurring and a more accurate evaluation of their weight or of the intensiveness of the process (1. 72).

Perfecting forecasting methods is a necessary, but far from sufficient, condition for achieving balanced supply and demand. The creation of an atmosphere in which administrative agencies and economic facilities are materially interested in mastering and making practical use of scientific forecasting methods is equally important.

The thesis is often advanced in our literature, and especially in sociology, that industry and trade must be oriented not only towards economic indicators, but also towards social criteria. For example, we read in (2, p 61) that "the orientation exclusively towards economic indicators in the activity of light industry and trade leads to the disappearance of cheap items from the products mix and to increasing demand for extremely expensive goods which are inaccessible, even to people with high wages." No one can doubt the fact that it is necessary to take social facts into account when evaluating the economic activity of production and trade enterprises. But there are obviously two methods of forcing economic facilities to deal with social criteria: 1) administratively set assignments to produce and market particular items; 2) the use of economic methods, that is, translating social criteria into the language of economic indicators. The second method is the more and effective and reliable of the two, and this is precisely the direction in which the constant creative investigations in theory and economic practice are moving.

Over the past two decades, the consumer goods trade and production management mechanism has undergone substantial changes. Their primary goal has been to find such forms of trade and industry interrelationships and such methods of economic stimulation as would orient production programs and trade plans towards end results, towards meeting consumer demand as fully as possible. Even back in the early 1970's, decisions by directive agencies were recognizing the necessity of rejecting apriori gross indicators for consumer goods production and of switching to a procedure under which production programs are shaped based on trade orders. However, this requirement was rarely observed in practice. It was not, it goes without saying, a matter of deliberate disregard of trade interests and consequently of consumer interests, but was rather that the directive orienting production programs toward trade orders was not reinforced by a corresponding system of planning and material incentives. The systemic overall imbalance of supply and demand, with the "diktat" of the producer with regard to trade which had evolved, also played a role of some importance.

A number of resolutions aimed at continued serious development of the economic mechanism in the areas of consumer goods production and trade have been

adopted recently. Foremost among them have been the CPSU Central Committee and USSR Council of Ministers decrees "On Improving Consumer Goods Production Planning, Economic Stimulation and Management in Light Industry"(3) and "On Developing Planning, Economic Stimulation and Management in State Trade and Consumer Cooperation"(4). They anticipate a number of important measures increasing industry and trade interest in producing and marketing goods conforming to consumer demand. The top-priority importance of the role of trade as the basis for shaping the production programs of industrial enterprises has been re-emphasized; it has been established that the production programs must not include goods for which delivery agreements have not been concluded with trade organizations. These and other measures mark yet another serious step in developing the economic ties between trade and industry, in creating in these branches conditions which will stimulate increasing the socioeconomic effectiveness of their activity.

Issues relating to the consistent practical implementation of the new principles of economic interrelationships between industry and trade require continued development. We think linking consumer goods production plans with retail trade turnover plans is the most important of these. As we know, the ministries and departments establish mandatory production plans in physical and cost terms for their associations and enterprises. At the same time, it often happens, when agreements are concluded at wholesale trade shows, that the amounts of goods to be delivered under the agreements are less than the production volumes anticipated by the plans issued from above. These discrepancies are easily explained. The ministry and department plans are based on state economic and social development plans, in which commodity demand volume must be linked to the purchasing power of the populace. The ministries use the state plan assignments as a basis for setting corresponding assignments for subordinate associations and enterprises. But when agreements are concluded, some of the output planned for release will have no buyers, due to supply having been overstated relative to demand. In such cases, reducing the production plan for the goods in question by the amount not covered by the agreements would be a very natural economic act. But the question arises of how to fill that portion of the purchasing power counted on in the state plan which is not backed by goods. A similar situation develops in those instances when industrial enterprises are not in a position to fill the requests of trade organizations for delivery of individual commodities: here, as in the preceding case, a gap arises between the supply of a given commodity and the effective demand for it.

One possible approach to solving these problems is developed by the author in this article, together with V.M. Polterovich and M.I. Levin. It consists in the following.

In order to ensure that commodity resources in the state plan conform to the purchasing power of the populace, it

is appropriate to set output marketing volume control figures based on the consumer goods supply and demand balance for the ministries and departments, and for them to set similar figures for the associations and enterprises.

The purchasing power of the populace of a republic, oblast, city or rayon is (with consideration of the forecast money migration processes) the base for determining the retail trade turnover control figures for the corresponding region. A basic plan anticipating sales volumes of commodities at stable prices is delineated within those control figures. Regional trade management agencies use it to approve for the trade organizations and enterprises a basic plan which takes into account meeting the retail trade turnover growth rate planned for that particular region. This plan also include only goods being market at stable prices and serves as a base for concluding agreements with producers. Moreover, the trade turnover control figures are communicated to the trade organizations and enterprises. The trade enterprise collective is given an incentive, in the amount of the planned material incentives fund, for carrying out the basic plan, but the incentive is reduced in cases of plan nonfulfillment. Within these control figures, each trade enterprise has the right to purchase and market commodities produced above the basic plan at contract prices, which serves as an additional material incentive to trade workers.

The incentive system should be constructed in such a way that each trade enterprise will be materially interested both in carrying out the basic plan and in coming as close to the control figures as possible.

In developing its own production program, the association (enterprise) must take trade organization and enterprise orders into account as fully as possible: the completeness with which these orders are considered and met will serve as one of the primary criteria for evaluating association (enterprise) activity and for correspondingly granting or denying bonuses to the collective. The total order for goods accepted at stable prices is the basic plan of the production association (enterprise). In addition to the basic plan, each association (enterprise) must have the right to set up the release and marketing of commodities at contract prices. The production of such commodities first serves as a source of commodity output to enable the association (enterprise) to reach the control marketing figures if the basic plan turns out to be below the control figures with regard to total trade organization orders; second, it should serve as an effective stimulus to accelerating product mix updating for consumer goods and should create interest in expanding the release of high-quality output which is in demand.

Substantial adjustments need to be made to the way in which retail prices for consumer goods are shaped in order to expand the production and marketing of commodities at contract prices. This system currently includes three types of prices: stable (list), those for "N"-index commodities ("N"="Novinka", "Innovation"), and contract prices. As concerns the first type,

they have always been and will continue to predominate in the price-formation system. Setting retail prices centrally is a very important condition for preserving their stability for objects of mass consumption.

Prices for "N"-index commodities, which allow for surcharges to stable prices, were instituted so as to stimulate improving product quality, and such surcharges may often be set by the production enterprises themselves. At present, the additional profit obtained from these surcharges is one of the primary sources of economic incentive funds. Moreover, this source now permits the generation of bonus funds for supervisory and engineering-technical personnel at levels which often exceed the maximum bonuses these workers can receive under the legislation. Incidentally, this is an important factor in reducing enterprise interest in expanding the release of commodities at contract prices, inasmuch as the additional income from marketing such commodities has almost no effect on the size of the bonuses actually received.

The production plan for "N"-index commodities is approved by superior agencies and, as does the plan for growth in overall gross product output indicators, inescapably pushes enterprises towards broadening the range of commodities awarded the "N" index, in spite of the fact that not all of those commodities will subsequently meet the demands on innovations. The press has repeatedly noted this fact. Here, for example, is testimony from A. Orel, director of the Rosobvtorg oblast wholesale enterprise: "...Planning 'gross' growth based on what has been achieved forces even those with no reserves for improving quality to look for loopholes so they can increase product prices. So-called mass-produced, inexpensive footwear has disappeared. Nearly all of it uses an expensive polyurethane sole, which has an 'N' index. Awarded, by the regulations, for a specific type of footwear and for a specific period of time, this index in effect 'doesn't wear out'. What kind of innovation is footwear that floods the market for years on end? Getting rid of an index is such a problem that leaders just stop manufacturing models. They begin producing another one that differs little from the first but, based on the formal criteria, receives a new 'N' index. The customer pays a handsome surcharge to the retail price for this"(5).

Prices for "N"-index commodities were instituted at a time when there were no prices of the third type, the contract prices, and they were in their day a serious step towards increasing flexibility in pricing consumer goods by taking the consumer features of commodities more fully into account. However, with the appearance of contract prices in the retail price system, the prices for "N"-index commodities have, in our opinion, outlived their usefulness. Let's assume that the other two types, stable and contract prices, need to be retained and improved. Stable prices should, as was already noted, cover the basic range of mass-consumption commodities and insure the consumer against unjustified price

increases. Of course, prices cannot be absolutely constant, even for these commodities. They must be reviewed from time to time and either decreased or, if necessary, increased to reflect change in the level of social outlays on their production or shifts in the supply-demand ratio. But superior price-setting agencies must continue to possess the right to approve them. As concerns the system of so-called temporary prices, these should be based on direct agreements between production associations (enterprises) and trade organizations. This would first of all be an important barrier to unsubstantiated price increases without consideration of the consumer features of the commodities or the demand for them, since trade workers would need to agree to the price level in each case; second, production enterprise workers would have to be concerned about the actual improvement in product quality for output claiming a higher contract price if they want to earn bonus funds.

One of the primary criteria of high trade service standards is the availability at trade enterprises of commodities in an assortment and of a quality which will enable the customer shopping at a given store to choose and acquire what he needs and to actualize unencumbered the monetary means available to him. We would thus eliminate such negative phenomena as lengthy searching for needed goods, repeated unsuccessful (not concluding in a purchase) visits to stores, pendulum-like migrations of customers (trips to other cities and rayons to purchase needed commodities) and the generation of postponed demand. How can this criterion be expressed quantitatively? One approach was developed and experimentally verified in the course of studies in Taganrog. After customers had made all their purchases and left the store, they were asked what goods they wanted to buy and for how much (limited to the money they actually had, of course), and how much they actually managed to spend. The ideal case is one in which the entire purchasing power is converted to commodities in a given visit to a store; when a customer is unable to find the commodities he needs, some of that purchasing power (sometimes all of it) remains unactualized. The ratio of the total amount of money actualized to the available purchasing power on average for the day characterizes the degree of satisfaction of the effective demand. Quite understandably, other conditions being equal, the availability at a trade enterprise of goods meeting the demand in terms of assortment and quality, active methods of selling, commercial initiative, and good advertising and consultation guarantee a higher degree of purchasing power envelopment. This indicator can consequently be used to judge many aspects of the level of trade services standards.

The proposed indicator of service standards may elicit a number of comments and protests. One is that this indicator does not take into account hidden unmet demand, that is, monetary means intended for the purchase of some goods but spent to acquire others in place of those unavailable in a store. And in fact, commodities acquired "perforce," instead of the ones desired but not

for sale satisfy consumer demand in smaller measure and so not every ruble spent on them testifies to the satisfaction of actual effective demand. It should be taken into account, however, that hidden unmet demand is significant, under present conditions, basically in the food trade. Thus, according to the Taganrog surveys, the hidden unmet demand for meat and meat products was 28 percent of the total actualized demand for this given group of commodities; the figures were six percent for milk and dairy products, 17 percent for cheese, 7.5 percent for preserved fish, more than eight percent for canned goods, 13 percent for groats and legumes, and so on. But as concerns nonfood goods, the hidden unmet demand was much smaller. According to the Taganrog surveys, it was two percent for fabric (relative to total actualized demand), three percent for clothing, 3.6 percent for footwear, 4.5 percent for haberdashery, 2.4 percent for knitwear, hose and socks, three percent for hand soap and perfumes, and 1.4 percent for dishes. The hidden unmet demand for furniture, furs and headwear was not established. It was as high as 9-11 percent only for such groups as electrical and radio-group items and toys. These data indicate that buyers of nonfood commodities now only comparatively rarely acquire one thing instead of another they intended to buy when they went to the store. In an overwhelming majority of cases, when they don't find what they need, they prefer to continue looking for it, and even travel to other cities to find it. This doubtless testifies to the growing needs of the populace, which doesn't want to content itself with goods which meet its requirements inadequately. It is an important fact that quite a high percentage of the population now has many nonfood commodities, so consumers are in no particular hurry to make purchases and can wait for the appearance of items more to their tastes.

In principle, revealing the hidden unmet demand presents no special problems; during the above-mentioned surveys, a simple set of questionnaire tools was developed and verified which enabled us to discover the hidden unmet demand and evaluate it statistically. Still, given these large-scale, systematically conducted surveys, setting them up can increase the time spent both on the surveys themselves and on processing the information obtained. We can therefore disregard special recording for those commodity groups for which the hidden unmet demand is comparatively small (and, as we saw, an overwhelming majority of the nonfood commodities are in those groups). But inasmuch as hidden unmet demand is still subject to change, it is probably appropriate to periodically conduct sample surveys to reveal those commodity groups for which the switched demand has a more or less substantial impact on the overall level of demand satisfaction, so as to have these data in mind when evaluating trade service quality.

To what extent are the descriptions of degree of satisfaction of the effective demand by various trade enterprises obtained by the proposed method objective? To what extent can they be used to evaluate the quality of trade services? These are not easy questions. In fact, sample

data on the degree of satisfaction of effective demand by particular trade enterprises are not free of randomness: the situation can be different on the survey day than on any other day. But that is a feature of all sample surveys. Take, for example, the listed assortment of commodities, that is, the number of types and varieties of items available in a store. Many economists consider this a more objective indicator, inasmuch as it deals with "actual" things (commodities). But it is easily seen that this indicator can also be obtained only on the basis of periodic surveys and is therefore subject to random fluctuations: an assortment might be more or less complete the day before the survey than it is on the day of the survey. Neither can we ignore the fact that, in and of itself, the availability of a certain number of varieties of items still does not guarantee that they will be in line with the demand: we quite often encounter situations in which a customer leaves a store without buying in spite of the formal, general "representation" of a certain group of commodities.

Perhaps one might ask the delicate question of the objectiveness of the researchers themselves. Obviously, if the latter want, for any reason, to color reality or, the reverse, put the situation in an unfavorable light, it is quite difficult to verify their conclusions. However, that "barrier" is easily overcome by including objective experts among them, for example.

What is a practical way of reflecting degree of satisfaction of the effective demand in the material incentives mechanism? For a start, it seems appropriate for superior and local agencies to use this indicator to evaluate the activity of retail trade enterprises when summing up work and socialist competition results. CPSU Central Committee and USSR Council of Ministers decree (4) anticipates that the economic activity of retail trade enterprises (organizations) will be evaluated when summing up the results of work and socialist competition based on trade turnover, putting fixed assets, production capacity and facilities into operation, and increasing the income from (profitability of) economic activity, and also as a function of conformity to commodity assortment lists, compliance with trade regulations, and of service quality and standards and absence of customer complaints. The decree naturally does not concretize the "service quality and standards" concept, nor does it indicate how to measure these most important aspects of commercial activity. Finding and substantiating these measures is a matter for science and economic practice. The proposed indicator — degree of satisfaction of effective demand — can, in our view, serve as a concrete, feasible method of evaluating the quality of retail trade organization activity. Other conditions being equal (fulfillment of plans for retail trade turnover, putting fixed assets into operation, obeying trade regulations, absence of customer complaints), in evaluating the work results of retail enterprises, preference must be given to those collectives which have achieved the higher degree of satisfaction of effective demand. Practical verification of this indicator might also reveal other methods of including it in the economic incentives mechanism.

We have examined only a few measures which might facilitate increasing the interest of production and trade enterprises in meeting consumer demand. The arsenal of means for achieving balanced supply and demand is much more extensive, of course. But investigating them lies foremost within the province of economic methods of management which orient economic facilities toward daily study of the market demands and towards meeting them more fully.

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### Article Indicates Ways to Satisfy Consumer Demand

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[Article by R. Lokshin, doctor of economic sciences: "Demand, Supply and Commodity-Monetary Relations"]

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[Text] The development of a national economy that is based on public ownership creates the necessary prerequisites for securing the appropriate proportions between the supply of goods and the demand for them since the main factors determining the volume and structure of production of producer and consumer goods, the population's incomes (including the terms of wages), prices, and pricing are systematically regulated by society. However, it should be recognized that these objective possibilities are as yet not being realized in full measure even though the range of scarce goods is diminishing, the consumption of foodstuffs and light industry products is growing, and families are better supplied with durable goods.

Of course, it should be borne in mind that the Soviet economy formed and developed under exceptionally difficult and unusual conditions. They include the losses

and destruction inflicted on the country by the civil war and by fascist aggression and the elimination of their consequences; the first steps in the construction of the new society in the absence of any kind of experience, trained cadres, and unceasing attempts from without to impede the creation of the socialist system in peacetime years; the continuous search for ways and means of solving the indicated, very complex and contradictory problem on bases that correspond to socialist principles.

In the two and one-half centuries it has been in existence, capitalism developed its own characteristic stern, cruel economic mechanism which is based on the survival of the strongest and which resolves problems at the expense of the working people. Naturally, such an avenue is unacceptable to the socialist system.

It is of interest to examine the conditions under which the necessary proportionality between supply and demand is achieved (or violated). The reference is not only to planning and management practice but is also to the theoretical principles that should pave the way for tested solutions based on the conceptualization of experience corresponding to the changing needs.

The imbalance between supply and effective demand is in particular characterized by the following figures. In 1985, compared with 1970, industrial production of consumer goods (group 'B') was 200 percent, the population's money incomes were approximately 218 percent; and retail trade turnover in state and cooperative trade (in prices of the corresponding years) was 209 percent. The production of goods also lagged behind demand during the 11th Five-Year Plan. During this period, consumer goods production rose by 21 percent; money incomes—by approximately 23 percent; and trade turnover—by 20 percent (in comparable prices, it increased by 16 percent).<sup>(1)</sup> The imbalance was partly compensated by imports of scarce goods and raw materials required for their production and by the raising of prices on individual goods.

The growth of the population's cash on deposit in savings banks is one (but not the main) indicator of the imbalance. Total cash on deposit at the beginning of 1986 was 4.7 times greater than in 1970 and 41 percent higher than in 1980.<sup>(2)</sup> At the same time, it is of course necessary to take into account the fact that the improvement of well-being and the increase in the need for savings (in particular, to purchase more expensive goods, to join housing cooperatives, to build garden sheds, and to maintain the accustomed standard of living after retirement) are the basis of the natural increase in cash on deposit in savings banks. Under certain conditions, the active solicitation of the population's savings can be one of the means for balancing demand and supply.

The imbalance is aggravated by the fact that the supply of some goods exceeds the demand for them. This is manifested in the excessive growth of commodity inventories that are the result: of the suppliers' nonobservance

of contractual obligations regarding mix and quality; miscalculations in the evaluation of demand and the incorrect orientation of industrial enterprises; and the error of jacking up the prices on certain goods. At the same time, there is a shortage of other goods together with the negative phenomena that attend shortages.

Shortages (or gluts) of individual goods are felt either everywhere or in individual regions. The regional imbalance forces the population to shop for scarce goods in other districts (cities) where the market is better saturated with a given product.

While there is a general sufficiency of one or another product, certain individual types of the product frequently become scarce. When the population does not find the model, style, or brand of the product they would like to buy, they are nevertheless forced to purchase similar products. Thus, there develops a hidden scarcity of an item that possesses certain consumer properties even though the money has been spent and demand has supposedly been satisfied. It seems to us that the general and partial imbalance between supply and demand is rooted in the past underevaluation of the role of commodity and monetary relations as an integral element in the development of the socialist economy. And yet if the economy is managed on a planned basis on a national scale, commodity and monetary relations acquire new potential making the most effective development of the economy possible and thereby making it possible to use socialism's advantages more completely.

Trade is a unique barometer that reflects the state of affairs in the nation's economy. Trade, which is the conduit of goods to the population in exchange for its money incomes, most graphically reveals the action of economic laws, including the law of distribution according to one's labor and the law of value and the degree to which they are observed in economic practice.

The role of trade is not restricted to the sale of goods to the population; the sphere of its action also extends to producer goods. The general commodity nature of the market for producer and consumer goods is also revealed in the fact that there is an ever greater need to develop methods for marketing producer goods. Naturally, enterprises must make equally rigid demands on the consumer properties of raw materials, supplies, and equipment just as the population does when it goes shopping. Only on the basis of strict reciprocal demandingness is it possible to solve the problem of bringing about a dramatic improvement in quality. The genuine feeling of proprietorship must also be manifested in particular in paying for raw materials, supplies, and products delivered to the enterprise only after checking to see to it that they are of the proper quality, that they conform to the standards and terms of the contract.

The transition from distribution [raspredelenie] to free trade based on economic contractual relations between producing enterprises and customer enterprises (either

directly or through wholesale, supply enterprises) not only does not alter but rather strengthens the planned basis of production and circulation.

It is trade not distribution that promotes the stricter accounting of quality and product mix, higher reciprocal demandingness, and the more precise evaluation of needs that are verified on a *khozaschet* basis (this refers to the correspondence between incomes and outlays). Here, there is a consistent and close relationship between the systematic development of commodity-monetary relations and *khozaschet* and the transition to its more mature stage: self-financing.

The past underassessment of the instruments inherent in commodity-monetary relations not only resulted in the limited use of incentives for more productive labor based on corresponding pay. The search for more effective management techniques was also excessively protracted. There were numerous mistakes in economic policy due to the artificial restriction of commodity-monetary relations and their intrinsic categories: value, profit, price, credit, economic contracts, and economic incentives as important means of achieving a balanced economy.

It is possible, for example, to point to legislation enacted in 1949 prohibiting consumer cooperatives from purchasing surpluses from personal household plots for mutually agreed upon prices.

This activity had a positive impact on the normalization of trade during the period when preparations were being made to abolish the rationing system (1946-1947) and after its abolition (1948-1949). These purchases of surpluses were a solid additional source of goods for the market and were an incentive for production on personal household plots. This prohibition was subsequently lifted and consumer cooperatives were widely encouraged to find additional commodity resources even though the available potential for doing so is still not by any means being used to the fullest.

Termination of the activity of producers cooperatives in 1960 resulted in a decline in the production of goods needed by the market, including goods based on local sources of raw materials and production waste which were drawn into circulation through this system. The combination of small and medium-size producers cooperatives with large enterprises in state industry promoted the rational distribution of labor and the more expedient use of material and financial resources (cooperatives were instrumental in channeling the population's disposable funds into the development of production).

Unjustifiable restrictions were imposed on citizens' personal household plots in the early '60's. As a result of the reduction in the number of head of cattle, sheep, pigs, and goats maintained on these household plots, the

production of meat, milk and wool declined and additional difficulties developed in supply since this reduction was not compensated by a corresponding increase in production on *kolkhozes* and *sovkhozes*. The producers of these products who had previously satisfied their own needs for them and sold their surpluses to the state and to the cooperatives as well as on the *kolkhoz* market, became themselves customers for these products.

The indicated decisions were the consequence of the exaggerated importance that was attached specifically to the forms of ownership rather than to their real content which was in keeping with the conditions of a concrete period in the nation's development. The theoretical substantiation of these measures was also rooted in the false notion that the preservation of commodity production under socialism was due to the existence of two forms of ownership—public and *kolkhoz*-cooperative ownership—and that the acceleration of socialization would weaken the action of commodity-monetary relations that were the source of "all evil." Putting the cart before the horse with regard to the forms of socialization was characteristic of this type of theoretical premise.

At the same time, even when *kolkhozes* were converted into *sovkhozes* (which was by no means always justified), the need for commodity circulation and commodity production continued because other effective means and forms had not as yet been developed for maintaining ties among socialist enterprises that were operating separately on a *khozaschet* basis.

The cooperative form of management has by no means exhausted its potential. What is more, it is seen to have the shoots of future self-management. Individual labor activity in agriculture, consumer services, and other spheres of the economy is called upon to serve the interests of society.

In accordance with the decisions of the 27th Party Congress, the nation is creating public catering cooperatives, consumer goods production cooperatives, consumer service cooperatives, and cooperatives for collecting and processing secondary raw materials. The creation of cooperatives in various areas of specialization makes it possible at the same time to address two key problems: (1) the problem of drawing citizens not employed in social production into the sphere of economic activity; and (2) the problem of drawing additional food resources, local materials and secondary raw materials into circulation.

However, theoretically and practically immature approaches to economic processes are also seen today. Thus, in some places there are still attempts at administratively establishing prices in *kolkhoz* markets, which leads to the reduction of supply [*privozy*] and even to higher prices when products are sold "underground."

Until recently, there were numerous opponents of the family contract in agriculture. The application of this form of management and stimulation of more productive labor was unjustifiably regarded as a return to the one-man farm, to the farmstead [khutorskaya] system, to the virtual elimination of kolkhoz production or its surrender to the "chastniki" [private traders].

There is still no clear understanding of the differences between private and personal ownership. Our science is partly to blame for this. Private car owners; gardeners who have built a house with their own earned income on plots assigned to them; and collective farmers, blue- and white-collar workers, and pensioners who sell in the kolkhoz market products they have grown with their own labor are routinely classified among the "chastniki."

Restrictions are imposed that make it difficult for city dwellers (working people, pensioners) to acquire an abandoned, previously "condemned" house in the countryside as their personal property. Obstacles are occasionally placed in the way of gardeners who have worked previously unused, unproductive plots of land, all the way up to razing sectors [uchastki] and hothouses in which they raised vegetables, fruit and flowers.

Frequently a parking place or a makeshift bathhouse or shower on a garden plot, or the size of a porch become the subject of strict regulation and extreme apprehension that this may produce a petit bourgeois owner.

Such an attitude surfaced very recently under the pretext of combating non-labor income. In the dubious effort to socialize absolutely everything, the possibility of hiring citizens (in their leisure time as well as pensioners, students, and upper graders) to perform services and produce goods was restricted.

Is it absolutely necessary to build palaces from glass and concrete at government expense everywhere if the same services at a lower cost to society can be performed by citizens by agreement at home or by citizens who have formed cooperatives under conditions regulated by society?

Attempts by local organs to intervene in the activity of trade organizations did not cease until recently (and are still in evidence in hidden form today). They are forced to pay for goods they did not order and for inferior goods that are delivered in violation of the mix agreed upon in the contract. This naturally resulted in a glut of unsalable products and to the need to subsequently discount them. Such a practice barred the door to improving quality and weakened the struggle for the honor of the factory label.

The practice of confiscating from state trade organizations (retail—100 percent; wholesale—95 percent) the difference between fines received and fines paid for suppliers' nonobservance of contracts for the delivery of goods of proper quality and mix on schedule was a violation of the elementary principles of khozraschet. As

is known, these sanctions only partly compensate the economic loss that is inflicted on trade organizations when trade turnover is diminished by shortfalls in deliveries or deliveries of inferior goods, the slowdown in turnover, and the subsequent discounting of goods that do not win the customers' approval. However, even this incomplete compensation was taken away from the trade organizations.

The cited examples show that the potential inherent in commodity-monetary relations for more effective and rational management in the interests of society as a whole and of work collectives with good performance, and of creating a more perfect mechanism for the systematic development of production and consumption are still not being properly used.

The decisions of the 27th Party Congress and of the January (1987) Plenum of the CPSU Central Committee and large-scale decrees on improving planning, economic incentives and management in various spheres of the economy, science and culture create the necessary prerequisites for the qualitative acceleration of economic growth rates. The use of commodity-monetary relations as a catalyst of economic growth and an important means of securing balance in the national economy must play a special role here.

The draft of the Law on the State Enterprise contains fundamental principles of economic management by the work collective. The law states that the enterprise is a socialist commodity producer, that it produces and sells products, that it performs work and services in accordance with the plan and with contracts under the conditions of full khozraschet, self-financing and self-management.

The balance of supply and demand concerns not only the production of consumer goods and the population's incomes, but all branches and spheres and all economic relations in the national economy. It is founded on production that grows on the basis of scientific-technological progress, on the strict coordination of growing needs, material resources, and earned income, on the use of the instrument of prices and pricing as a stimulating regulator of these proportions.

Only under the conditions of socialism and planned economic management are conditions created for the most effective application of such instruments as wages (given full employment), price, value, income, profit, khozraschet, and self-financing in the interests of society. Their impact is highest when the work collective, to which society transfers the implements and objects of labor under certain conditions, becomes the basic economic cell.

The feeling of proprietorship in its various manifestations is what must become the constant stimulus and the decisive means of increasing the effectiveness and balance of the economy. It is manifested in the fact that the



work collective becomes vitally interested in reducing production (marketing) costs, in making thriftier use of raw materials, supplies, energy and equipment, and in producing high quality products with a smaller work force. The well-being of the work collective and of each worker depends on the quantity and quality of output, on the degree of success with which it is sold, and consequently on the income that is derived. This secures society's interests on the whole since a certain (normative) part of the income is used for public needs under all circumstances. After fulfilling its obligations to society, the collective becomes the proprietor of the resources left at its disposal for further productive and social development, for the remuneration of labor. It would not be necessary to repeat these principles which are rhetorical for socialism if theoretical and other even mundane ideas that existed in the past did not inhibit the introduction of effective management principles.

Society and its primary economic cell—the work collective—like every working family must live within its means and constantly measure its expenditures against its income.

The universal introduction of a progressive wage system based on the quantity and quality of labor and its greater differentiation instead of the past trend toward wage leveling will greatly increase the interest in work that is more productive.

Only when wages do not exceed earnings (given a higher growth rate of labor productivity) will real conditions be created for general balance, including balance between the population's money incomes and expenditures.

Material resources, both in physical and value terms, must be compared against earnings (whether they take the form of part of the population's money incomes used to purchase goods or part of enterprise proceeds scheduled to pay for raw materials, supplies and equipment).

General, global agreement between supply and demand on a national scale is verified through a relatively small number of physical and value balances. However this is not enough to secure the full, all-round balance between effective demand and resources, which concerns tens and hundreds of thousands of products with numerous qualitative characteristics, in physical and value terms. Such balance is realized through a whole chain of relationships between suppliers and customers in all branches of the national economy. It is for this very reason that economic contracts today as well are an integral element not only of enterprise plans but of the national economic plan as a whole; otherwise a reliable balance will not be achieved.

Such an approach was predetermined by decrees adopted by the CPSU Central Committee and the USSR Council of Ministers in 1986 on improving planning and

management in light industry, trade, the agro-industrial complex and other branches of the national economy that are making the transition to full cost accounting and self-financing.

But what should be uppermost: global calculations of the volume of commodity resources (in the given instance, the discussion is of the expression in value terms of goods earmarked for sale to the population in conjunction with retail trade turnover plans) that were articulated during the drafting of the plans or the results of wholesale trade fairs and economic contracts concluded at them?

In order to create confidence that the terms of the in-depth economic reform will be stable, it is essential to answer this question very definitely: **economic contracts must become the basis for formulating the plan both for the enterprise and at the higher levels of planning.** Then, the next question arises: what should be done with the volume of production (commodity resources) that are included in the draft plans in the global calculation stage if as a result of economic contracts that are concluded part of the products are "overboard" (the goods are not purchased because they do not correspond to the demands of trade, are not offered for sale because the necessary material resources have not been produced or because of the disparity between the physical and value indicators used in the calculations, or for other reasons).

Such questions arise every year but the necessary answer to them has not yet been found. This is one of the reasons why the retail trade turnover plans have not been fulfilled in recent years.

#### [No 5, May 87 pp 2-7]

[Text] When we examine the problem of coordinating indicators of the plan for the economic and social development of the nation, we should recognize the fact that the in-depth restructuring of the economic mechanism makes it unlikely that they will closely coincide henceforth. At the same time, this problem should not be oversimplified. It is complex and contradictory by its nature, especially as regards the production and sale of consumer goods, trade, and commodity turnover connected with the population's money incomes and expenditures.

First, the results of wholesale trade fairs and the economic contracts concluded at them occasionally reflect the imprecise evaluation of demand and consequently of orders from trade that are adjusted by trade organizations themselves in the course of the year. Second, the possibility is not excluded that industrial enterprises and trade organizations may reciprocally agree to adopt "easier" targets for the production and delivery of goods, not fully taking into account their responsibility for balancing supply and demand. Third, industry is not always prepared to fulfill orders due to limited resources



of certain types of raw materials, supplies, and equipment. What is more, as yet the proper incentive is lacking for adopting intensive plans in accordance with the customers' demands.

Therefore, the examination of the results of wholesale trade fairs and the adoption of decisions making it possible to eliminate disagreements and discrepancies (allocation of insufficient raw materials, redefining needs, changing prices, and other possible decisions) must precede the approval of the national economic plan. Nor can we fail to make mention of the fact that points of disagreement and the organs that are responsible for eliminating them and for deciding the issues in good time are as a rule already known when the plan is being drafted. The failure to take a decision on the issues means that answers to the discrepancies will have to be found in the process of implementing the plans.

The further debugging of the mechanism in order to secure the more precise coordination of national economic proportions with enterprise plans is one of the top-priority tasks of the central economic departments and the corresponding ministries. Plans for development at the national economic level must obviously contain reserves making it possible to compensate for disparities between enterprise plans and global calculations in the stage when the control figures are being formulated. Experience shows that the drafting of plans at a rigid, "critical" level without the necessary reserves creates considerable difficulties in the future. Scholastic disputes about what is more important—the plan or the economic contract, and their comparison with one another only postpone the solution of the problem of effectively coordinating approved plans on the basis of the indicated resources and stable economic norms that envisage more effective work. The return to volitional decisions requiring the incorporation of targets not backed by resources in the plans would negate the positive changes that can be realized by expanding the rights and reciprocal responsibility of higher and subordinate management elements.

Analysis shows that the relatively more rapid growth of production in value terms compared with the physical growth of production is one of the quite stable trends in the development of production. This situation is frequently criticized in the press. Such criticism is justified when inexpensive goods are "washed away" or unduly high prices are established that do not reflect actual costs and do not take the correlation between supply and demand into account. However, criticism of this objective process is not always based on a proper study of the state of affairs. There are those who believe that plan indicators phrased in value terms are "to blame" for the curtailment of the production of less expensive, popular products, that they are the source of all misfortune. It is therefore proposed that the production of the most important types of products be planned in physical terms and that the value indicators form by themselves in the

process. In our opinion, proposals that assume the possibility of transforming value indicators into a mere counting apparatus lacking its own socioeconomic base are theoretically and practically insolvent.

Beyond a doubt, the production of specific items whose use values are responsive to the customers' needs is the main component of production plans, including plans for the production of consumer goods. But naturally, in the process of determining the physical volume of a product, we must not lose sight of the fact that it possesses value and that it also serves the interests of society in this respect.

We also know that *khozaschet*, the circulation of money, the formulation of the state budget, and the verification of the most important national economic proportions between consumption and accumulation, between the population's money incomes and expenditures and society's oversight over the measure of consumption are impossible without value indicators.

Returning to the question of the trend toward the relatively more rapid growth of production in value terms compared with the increase in the physical volume of the product, we must point to the increase in the production of products with improved consumer properties which, as a rule, naturally entails additional material and labor costs. In addition, the extraction of many types of raw materials, supplies and fuel becomes more expensive in connection with the working of deposits that have a smaller pay load or that are situated in relatively inaccessible regions. There is also an increase in environmental protection costs and in maintaining the ever growing production potential.

Nor should we lose sight of the low existing level of state retail prices on meat and dairy products, butter, potatoes, and certain other products compared with the cost of their production. The state budget for 1987 provides a 58 billion ruble subsidy for compensating the difference between purchase and retail prices of the given products.<sup>(1)</sup> This is 13 percent of total budget spending.

In part, higher average retail prices of certain products are the result of the increase in the share of consumer cooperatives that purchase meat and other products from the population's farms [*khoziaistva*] for agreed-upon prices. Products purchased under these conditions are sold to the population for prices that are higher than state prices because cooperatives, which do not receive state subsidies for these operations, must defray their own higher purchasing costs.

At the same time, in order to prevent the drop in the production of relatively inexpensive products that are needed by the population, trade organizations are obligated, as indicated in decrees on improving the economic mechanism in light industry and trade, to reflect in their orders the need for goods in special price groups

for children, youth, and the elderly. Industrial enterprises are obligated to accept such orders to be filled and are not entitled to produce goods that have not been ordered by trade.

The foregoing does not contradict the idea of solving the urgent problem of securing the more appreciable differentiation of prices in the shortest possible time, bearing in mind the increase in the production of high quality, especially fashionable goods that are intended for the corresponding circle of customers. Contract prices are used to this end but as yet on a limited scale.

Special rewards should be provided for enterprises whose products have won the respect of customers because of their high consumer properties. The trademark of such an enterprise on a refrigerator, washing machine, television set or other durable consumer good entitles the enterprise to receive a special price instead of the present orientation toward the so-called parametric series which reduces to the same level the services of work collectives that constantly show concern for the high prestige of their product.

At the same time, it is essential that the prices of goods that do not find a market because of their inferior quality be immediately reduced within the period assigned for their sale to a level making it possible to sell them. Economic contracts can specify who shall bear the expense of price discounting. To date, however, in the name of fulfilling the plan, some enterprises continue to produce goods that do not win the customers' recognition because of their inferior quality and their price. The proposed measure will inspire the more rapid restructuring of production.

The prompt discontinuance of production of unpromising, unpopular products is a problem that should be examined on a broader plane. It is far more advantageous to society not to expend raw materials, supplies, and labor on the production of obsolete products, to halt such production before converting technology to the production of products that are in demand. During the restructuring of production, it is more advisable to pay wages and, if necessary, to carry out measures to retrain personnel who were previously producing unpopular products.

The use of prices as a means of balancing supply and demand presupposes the preliminary analysis of the situation in the production and marketing spheres. This concerns, in particular, the course of sales, the state of inventories, and the completeness of the mix not only of the goods that are the object of examination but of interchangeable, companion products as well as raw materials and supplies used in the production of the finished product. Only the integrated examination of this problem on the basis of possible increases in production, improvements in quality and product mix, and

increases in the income of individual social groups in the population will make it possible to make responsible decisions and to avoid errors.

In this regard, we should take into account the experience of the retail price reform in September 1981 when retail prices were raised on rugs, furs, crystal, jewelry, and certain other goods without an in-depth study of the prospective development of the market for these goods. As a result of the excessive reevaluation of the price factor as the means of balancing supply and demand, the desired result was not achieved. To the contrary, there developed new disproportions, surpluses formed, and it was necessary to cut back the production of a number of products.

The nonfulfillment of retail trade turnover plans is one of the indicators of the imbalance between supply and demand. The importance of this indicator is underscored by the fact that approximately three-fourths of all money outlays by the population are for the purchase of goods in state and cooperative trade. Retail trade turnover plans were not fulfilled in 1982-1986. In addition to the previously indicated general and particular reasons for the imbalance of supply and demand, we should also point to reserves for increasing trade turnover that for various reasons continue to be unutilized by trade organizations themselves and by local trade management agencies.

The urgent need for the comprehensive analysis of the unrealized potential inherent in the quality and organization of work in the marketing sphere also stems from the fact that state and cooperative trade in the Belorussian, Latvian and Estonian union republics converted to the new conditions of management on 1 January 1987, while the remaining republics will make the change on 1 July 1987. The branch, which numbers more than one million retail trade and public catering enterprises, including so-called non-commercial activity (procurement, bakeries, consumer goods production, subsidiary farming, enterprises in the infrastructure, and wholesale trade), employs more than 10 million persons.(2)

This aggregate detachment of workers, engineering-technical personnel and employees will be tested for their maturity, for their ability to operate with broader powers and higher responsibility for their performance. They will also have a higher measure of responsibility in connection with the fact that the branch will be one of the first converted to self-financing. This means that its production development, social development and pay will depend directly on its earnings.

Reserves for increasing trade turnover are associated with various aspects of the activity of trade in which many systems are represented. Among them: state trade, including ministries of trade of union republics; departments of worker supply under ministries in various

branches of industry: the trade network of gosagroproms, knigotorgs, Soyuzpechat, Aptekoupravlenie, goskomnefteprodukty [state committee for the supply of petroleum products], and the factory outlet trade of industrial ministries; the multibranch activity of consumer cooperatives; and the third channel of Soviet trade—the kolkhoz market.

Let us briefly try to examine the directions that the search for reserves for the growth of commodity turnover and for the more effective use of commodity resources can and should take.

**Acceleration of the Turnover Time of Commodities.**

**Wholesale Trade.** At the beginning of 1986, in retail and wholesale trade and in industry there were 97.7 billion rubles' worth of commodities or enough commodities for 118 days of trade. On the same date in 1981, inventory comprised 67.1 billion rubles, enough for 96 days of trade. Thus, in 5 years trade inventories increased by 46 percent while retail trade turnover between 1980 and 1985 increased by 20 percent (in prices of the respective years).(3)

The deceleration of turnover time was the result of the better saturation of the market with a number of commodities; higher prices on individual commodities and the failure of the mix and quality of some products to correspond to the population's demand also had their impact.

However, trade cannot passively reflect shortcomings in other spheres of the economy. Its task is to exert an effective influence on production and to skillfully maneuver commodity resources. After all, trade organizations have the right not to pay for delivered goods if contractual obligations are breached. They are responsible for correctly evaluating demand and for orienting production toward the manufacture of the required products.

The slowdown in turnover time was costly to trade. Loan interest in marketing costs increased from 0.29 to 0.42 percent of trade turnover.(4) According to the estimates, the absolute sum of expenditures for this reason rose by 370 million rubles while there was a corresponding decline in profits. As analysis shows, the distribution of commodity inventories among various regions of the nation, in trade systems and at enterprises is extremely uneven. The share of nonfood inventories in retail trade is relatively large. In the retail link, which has the responsibility of ensuring the rhythmic supply of goods to the retail network, seasonal and contingency inventories are formed only at the level of about 20 percent of nonfood inventories. This restricts the possibility of maneuvering resources. At the beginning of 1986, inventories of silk textiles in the nation's retail trade were sufficient for 248 days; in Georgia—over 400 days; and in Armenia and Turkmenia—330 days. The level of inventories of clothing and haberdashery in Uzbekistan was two times higher than the national average.

Every day of maintaining trade inventories vis-a-vis general turnover in 1987 (310.2 billion rubles excluding the sale of alcoholic beverages) requires the diversion of material resources valued at almost 850 million rubles from the national economy. Such is the price of acceleration of the turnover of commodity inventories by one day.

As a result of measures to combat drunkenness and alcoholism, there has been a sharp drop in the sale of alcoholic beverages and at the same time the population's demand for many food and nonfood commodities has grown. Increased demand in 1986 was partly satisfied by drawing into circulation commodity inventories, the total volume of which in retail trade declined by 6 billion rubles or by roughly 8 days.

It is naturally beneficial to draw inventories into circulation since this not only accelerates the turnover of resources but also reduces the possible volume of unsatisfied demand. The stable development of trade requires the creation of mobile inventories, the rational distribution of which between retail and wholesale trade makes the efficient control of commodity resources possible.

In the process of examining the role of wholesale trade, we must point to the insufficient linkage of work incentives in this link and the fulfillment of retail trade turnover plans. This incongruity should be eliminated in the process of introducing and improving the new economic mechanism.

There is a need to revise the excessively consolidated commodity specialization of wholesale trade which causes us to lose sight of whole groups of commodities including the so-called small [melkiye] commodities. We should establish independent subbranches—of construction materials and of sporting goods, as has been done, for example, in the Ukrainian SSR Ministry of Trade—in wholesale trade. The creation of such wholesale firms, which would be responsible for trade in entire complexes of consumer goods, would correspond to the line of subordinating the work of the wholesale link to the interests of retail trade.

**Trade in Lumber and Construction Materials.** In 1986, there was a considerable increase in market stocks of construction materials while for the current year they have been set in a volume that satisfies orders from trade. However, centrally planned lumber, cement, soft roofing, gravel, window glass, sanitary engineering equipment for sale to the population as well as other goods the population requires for individual construction and repair are not reaching the customer entirely. This is not only because of the failure of industry and Gossnab [State Committee for Material-Technical Supply] organs to fulfill the established delivery plans, to use part of the allocated resources for non-market needs, but is also because of the poor organization of sales and deliveries of materials to customers.

It should be noted that only since 1986 did it become the practice to sell construction materials at wholesale trade fairs on the basis of economic contracts envisaging their delivery in the mix and by the time agreed upon with trade organizations. Hitherto, lumber and construction materials were delivered to trade on the basis of planning commands [naryady] issued by Gosnab organs or at the behest of industrial enterprises themselves in a convenient mix frequently in excessively large, unwieldy casing and not at the time when the population's demand for these products is highest.

Customers who decide to use their own earned income to build a dwelling house or to develop their garden plot experience great difficulty both in purchasing the necessary materials and in having them delivered since the functions of trade and transport are separate (these are separate "services" and trade lacks sufficient means of transport).

It is very difficult to acquire such materials as bricks, gravel, sand, and other materials that are distributed at the local level. Enterprises (plants, quarries) that produce these materials are located in different places and after the customers make their payments they frequently receive naryady which they must submit directly to enterprises and find their own transport.

Experience amassed in the Baltic republics and a number of other regions of the nation shows that the combination of different goods and services under the same auspices enables those desiring to build a house or develop a garden plot to do so ("on a turnkey basis") without extra effort; they pay the full cost of the goods and services when the project is completed. Of course, it is first of all necessary to create the necessary conveniences for those *zastroychiki* [persons/institutions having a house built] (and they are the majority) who build the house or develop the garden plots or make repairs through their own efforts.

Soviets of People's Deputies at various levels are responsible for the coordination of the activity of trade, consumer services, Gosnab organs, as well as enterprises that produce local construction materials. The aid of enterprises in other areas of specialization that are called upon to render services to their blue- and white-collar workers for a fee must also be enlisted in this effort.

The total assimilation of market stocks of construction materials allocated for 1987 and dramatic improvement of trade in them will make it possible to increase trade turnover in this group of commodities by 1.7 billion rubles compared with 1985. This will facilitate the solution of a major social problem.

**Consumer Cooperative Trade in Agricultural Products Purchased for Agreed-upon Prices.** In 1985, cooperative turnover under these conditions comprised 4.8 billion rubles compared with 1.9 billion rubles in 1980. In 1986, this turnover increased by more than one billion rubles.

It would seem that the growth rates are high but analysis shows that the possibilities are much greater. First, the activity of cooperatives in this area is as yet primarily confined to trade in meat and meat products that occupy approximately 70 percent of this type of turnover. Second, by no means all regions have attained results similar to those that are noted in Omsk, Penza, Vinnitsa, Cherkassy, Khmel'nitskiy, and certain other industrial centers and oblasts. The range of such unions of consumer cooperatives is still narrow.

According to Tsentrosoyuz [Central Union of Consumers' Cooperatives], consumer cooperatives to date account for only half of the purchases of commodity output from citizens' personal household plots. The target of doubling the volume of cooperative turnover of agricultural products by the year 1990 can be met much sooner, especially with regard to the prospects for the development of trade in the *kolkhoz* market.

The recent decree of the CPSU Central Committee and the USSR Council of Ministers articulated measures for improving the work of collective farm markets. It is deemed particularly expedient to transfer *kolkhoz* markets to the charge of consumer cooperative organizations. The increase in its role in more completely satisfying the demand of both the rural and urban population also stems from the multibranch character of the activity of cooperative organizations in urban-rural economic relations. Consumer cooperatives are engaging in trade, public catering, procurement, and the purchase of agricultural products and raw materials, including surpluses from the population's personal farms, bakeries, and consumer goods production based on local sources of raw materials, and have great possibilities and reserves for increasing commodity resources.

**Public Catering.** The expansion of the turnover of public catering should be classified among the major reserves. At the present time, it occupies approximately one-fifth of the total sales of foodstuffs to the population. The expansion of public catering through the generally accessible fast service network (sandwich shops, *pirozhki* shops, pancake houses, *cheburek* [meat patty] shops, *ravioli* shops, and similar small mobile enterprises) has particularly great potential. The experience of V. I. Redin's brigade, which organized the production and sale of *chebureks*, broth, and culinary items on a contract basis, attests to the great potential of this subbranch of trade. The 17-person brigade has pledged to sell 18,000 rubles' worth of products a month. This enterprise previously employed 23 persons, which meant substantially smaller earnings. While the earnings of brigade members are now considerably higher, labor productivity substantially outstrips wages.

The public catering network at the workplace, in higher and secondary specialized education institutions, vocational-technical training schools, schools, and dormitories must be expanded to the required norms. The February 1987 decree of the USSR Council of Ministers

on the creation of public catering cooperatives is aimed at bringing into play unutilized reserves by channeling additional food resources into this sphere and by employing citizens that are not engaged in social production. Small cooperatives must expand the generally accessible public catering network, especially fast food enterprises, which as already stated above, comprise about one-half of the norm.

**Other Directions.** Major possibilities for increasing trade turnover consist in the use of production waste and substandard materials and their sale to the population through stores (or departments in stores) of the type "Do It Yourself," "Able Hands," and "Young Technician," and in the expansion of commission trade in nonfood items and the sale of goods on credit. Trade turnover will be significantly enhanced by the development of small-scale retail trade, especially in population centers lacking a stationary trade network; by the organization of traditional trade fairs and bazaars; by the acceptance of trade-ins on new television sets, timepieces, washing machines, and refrigerators.

We must not fail to take advantage of the possibilities that exist for increasing the sale of fruit, vegetables and potatoes, especially as a result of improvements in quality and the broad encouragement of consumer cooperatives, kolkhozes and sovkhoses to trade in these products for cooperative prices inter alia in the kolkhoz market.

The development of individual labor activity promises no small effect in attracting additional commodity resources.

Special significance is acquired by the elimination of scarcity on the basis of a purposeful product mix policy. Trade, which together with industry is called upon to elaborate conceptions of the development of the product mix and target programs for groups of products, is supposed to implement this policy. The implementation of such programs is possible through five-year economic contracts and agreements between trade, which are incorporated in plans for economic and social development.

Such an approach stems from the fact that the scarcity problem has shifted to another plane: it is necessary to improve the quality and to restructure the mix of a broad range of products that are available in abundance. This is the specific feature of the present status of many goods in the market.

It is necessary to ensure the satisfaction of needs for complexes of consumer goods (for example, goods for the home or the garden plot), the formation of the wardrobe of clothing and footwear according to their functional purpose (seasonal, for work, for leisure, for sport, etc.).

While in past years, the growth of trade turnover was to a considerable degree the result of dramatic increases in the production of individual groups of commodities (for example, passenger cars, jewelry, crystal, rugs, alcoholic beverages) that "made the plan," the increase in sales must now apply to the entire range of commodities based on the elimination of scarcity within the group.

At the same time, the scarcity of individual types of a commodity despite its general abundance affects practically any commodity group. In the case of bakery goods, they are: rolls and buns made from top- and first-grade flour; fancy cakes; ring-shaped rolls and biscuits; Borodino bread; and breads consumed in Central Asia, Kazakhstan and the Transcaucasus. The demand is not completely satisfied for buckwheat groats, kidney beans, long macaroni from special-quality flour and with various fillers. Flour required for certain types of home baking is not sold everywhere. Such confectionery items as crackers, pastilas, marshmallows, and in some cases, spice-cakes are not available in sufficient quantity. The assortment of vegetable oils, margarine, canned fruits and vegetables, and juices is limited. Industry does not turn out enough goods in small packages. This results in queues, the loss of the shoppers' time, the overexpenditure of packaging materials as a result of crude manual packaging in stores, and high labor and transport costs.

In the course of the implementation of the USSR Food Program, it can be supplemented by product mix configurations incorporated in the plans of Gosagroprom of the USSR and union republics, allied ministries and economic contracts with trade organizations.

Problems in the product mix policy for nonfood commodities are no less urgent. The Comprehensive Program for the Development of the Production of Consumer Goods and the Service Sphere in 1986-2000 contains a number of special decisions that relate in particular to the production of footwear, toys, construction materials, sporting and tourist goods, and products of the electrical equipment industry and their delivery to market. It seems to us that for every group of commodities, especially those that are not covered by adopted decisions, there must also be product mix configurations that are realized in one-year and five-year economic contracts and agreements between industry and trade.

Of course, product mix configurations must provide for the production of goods that are not produced by Soviet industry or that are as yet produced in small lots. Among them, for example, fast-frozen and sublimated products; vegetable and potato convenience foods; goods for the rural home or for families engaged in subsidiary farming (self-contained heating, water supply, sewage, and facilities for storing and processing agricultural products; compact implements and tools); a complex of goods needed by gardeners, motorists, etc.

The solution of these and many other problems is closely associated with upgrading the qualifications of trade personnel.

The experience of collectives of leading trade enterprises and organizations shows the important part that is played by good organizations in combination with the intensification of the human factor in raising the level of trade services for the population.

The new economic mechanism is called upon to become one of the important conditions in the general development of trade in the nation. But at the same time, it will be necessary to solve questions associated with the elimination of the unprofitable operation of public catering and trade in a number of commodities through the revision of trade discounts.

A word should be said about the urgent need to raise the prestige of trade workers. This is connected with the fact that many work collectives report the departure of youth, occasionally due to haughty, overbearing attitudes toward workers in this sphere. Of course, prestige must be won through honest, conscientious work, through concern for raising the level of service, and through high professional qualities. At the same time, we must make

wider use of the information media, including the press, radio, and television for demonstrating good results that have been attained in this important sphere of activity since general successes in the development of the economy are gauged on the basis of what can be bought with one's earnings and the conveniences that have been created for the customer.

#### Footnotes

1. *Pravda*, 18 November 1986.
2. "Narodnoye khozyaystvo SSSR v 1985 g. Statisticheskii yezhegodnik" [National Economy of the USSR in 1985, Statistical Yearbook], "Finansy i statistika," 1986, p 482.
3. "Narodnoye khozyaystvo SSSR v 1985 g.," p 458, 474.
4. *Ibid.*, p 476.
5. *Pravda*, 27 February 1987.

## LABOR

### Positive Features of Individual Labor Activity Affirmed

*Moscow PLANOVOYE KHOZYAYSTVO in Russian  
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[Article by B. Bolotskiy, candidate of juridical sciences, and S. Golovnin, candidate of economic sciences: "Development of Individual Labor Activity"]

**[Text] The development of individual labor activity requires the implementation of a set of measures of a legal, organizational, and economic planning nature for the purpose of a fuller utilization of material, labor, and financial resources and the satisfaction of workers' needs.**

The 27th CPSU Congress noted that social policy problems were always the center of attention for the party. The results of economic activity affecting workers' vital interests are realized precisely in this sphere. The underestimate of problems of the social and cultural sphere, which occurred during the recent past, weakened the social efficiency of production, in connection with which planning and management bodies and central and local economic organizations must make a decisive turn to the needs of the social sphere (1). The task was set to develop various forms of satisfaction of the population's demand and to provide services, including individual labor activity as one of the conditions for the realization of this policy developed by the party.

The USSR Constitution (article 17) defines the legality in the modern socialist society of individual labor activity based exclusively on the personal labor of citizens and their family members. The state is obliged to regulate this activity in order to utilize it in the interest of society.

However, owing to a number of reasons, primarily of a subjective nature, public opinion and social practice had prejudice against individual labor activity and often it was evaluated as a phenomenon not corresponding to the development of the socialist society. As a result, the normative regulation of individual labor became mainly prohibitive and measures were taken to limit such an activity. The January (1987) Plenum of the CPSU Central Committee stressed that this did considerable economic and social damage (2).

The Law on Individual Labor Activity adopted by the USSR Supreme Soviet on 19 November 1986 and put into effect on 1 May 1987 is an important legal state measure for the realization of the constitutional guarantee for individual labor activity. It is to become an effective tool of fulfilling the party's social program.

The law enumerates more than 30 types of individual labor activities, in which citizens can engage in the sphere of handicraft industries and domestic, social, and cultural services for the public, as well as in other spheres

of production of goods and provision of services. Moreover, all types of individual labor with the exception of those expressly prohibited in articles 13, 16, and 19 are allowed.

Union republics were granted the right to introduce changes and supplements in lists of allowed and prohibited types of individual labor activities. At the same time, however, those that are allowed in the all-Union law cannot be prohibited additionally. A systematic realization of this principle is especially important, because its nonobservance in previous legislation led to numerous bans on various types of individual labor both by all-Union and republic normative acts. Transport services for citizens by owners of private motor vehicles and pension services for tourists and excursionists were not permitted. The manufacture of furniture and other carpentry articles was prohibited in five Union republics, shoemaking and photographing, in eight, motor vehicle repairs, in ten, and so forth. On the whole, 54 types of handicraft industries were additionally prohibited throughout the country (3).

Along with this the population's unsatisfied demand for many consumer goods and domestic, municipal, and social-cultural services increased. It has been estimated that 110 to 120 billion man-hours of citizens' free time are annually spent on self-services in everyday life and about 40 billion man-hours, on a search for necessary things at state and cooperative trade enterprises. Nevertheless, in more than one-half of the cases customers cannot buy the goods they need.

At the same time, the population has considerable material possibilities for meeting the needs for goods and services. From 1970 through 1985 the average monthly wages of workers and employees in the national economy increased 1.56-fold and with due regard for payments and benefits from public consumption funds, 1.63-fold. In 1970 only 18 percent of the population had a monthly income of more than 100 rubles per family member, but in 1985, more than 60 percent. In 1985 the value of citizens' property totaled about 700 billion rubles and the amount of money deposits kept in savings banks reached 220.8 billion rubles. The share of expenditures on the purchase of furniture and articles for cultural and domestic purposes and on the payment for social-cultural and other services in the structure of the population's expenses increased.

The existence of an unsatisfied effective demand is due primarily to the fact that a significant part of the population's income is not provided with goods and services of the required types and quality. Economically unsubstantiated payments of monetary assets in the sphere of public production not equivalent to the labor contribution and, therefore, not having a commodity coverage were some of the reasons for the formation and development of such a disbalance. Solely owing to the lack of regulation of economic relations between enterprises sending workers to agricultural work, to fruit and

vegetable bases, to construction projects, and to provide public services and amenities in territories and organizations utilizing the labor of these workers, the surplus of monetary income totals no less than 2 to 3 billion rubles annually. As a result of write-ups for unperformed work, 3 to 4 billion rubles are annually paid in construction and 2 to 3 billion rubles, in transport (4).

According to calculations by the All-Union Scientific Research Institute for the Study of Public Demand for Consumer Goods and Trade Conditions of the USSR Ministry of Trade, direct losses due to the return and modification of rejected goods annually total about 4 billion rubles. If we take into consideration that in 1985 the average annual wages of workers and employees with due regard for payments and benefits from public consumption funds totaled 3,222 rubles, this means that during the year 1,241,000 people were unable to spend their wages owing to the lack of the necessary volume of consumer goods production. According to evaluations by the Scientific Research Economic Institute of the USSR Gosplan, the population's unsatisfied demand for paid domestic services alone is now equal to 5 to 6 billion rubles annually and, if the existing situation persists, can reach 10 billion rubles during the next few years.

Unjustified restrictions and bans on citizens' individual labor activity in the sphere of handicraft industries and provision of domestic, social-cultural, and other services with a constantly rising unsatisfied demand for them has led to the fact that citizens' economic activity outside the framework of public production has acquired a nature unregulated by the state and its volume has reached a size comparable with the scale of management of corresponding socialist enterprises.

According to evaluations by specialists, in the total volume of domestic services provided for the urban population 50 percent of the shoe repairs, 43 percent of the apartment repairs, and 30 percent of the complex domestic machinery repairs are made privately. The needs of individual motor vehicle owners for motor vehicle services on the RSFSR territory are met no more than 35 percent. Throughout the country about 60 percent of the total volume of work on motor vehicle maintenance is performed in the form of self-service or individual provision of services.

The share of individual labor in domestic services in rural areas reaches 80 percent. Throughout the country from 1.7 to 2 million people are engaged in the provision of domestic services privately, while 2.8 million workers are engaged in the state sphere of domestic services.

The utilization of individual labor in other spheres of economic activity has also acquired no less impressive a scale. For example, the total area of individual housing

annually commissioned in the country reaches 16 million square meters. This is more than is built by kolkhozes and housing cooperatives taken together. Meanwhile, there are hardly any state organizations building individual dwelling houses on a contractual basis. Most builders use the services of individual people, or of temporary brigades performing construction work according to agreements both with citizens and with organizations. The total value of construction and installation work performed in such a way in rural areas in the last 5 years has reached 27 billion rubles, which comprises 8 percent of the total construction volume in the country. In a number of large regions about one-half of the rural construction program was realized through the utilization of citizens' individual labor (in Kazakhstan, 43 percent and in Kurgan Oblast, 60 percent). These data convincingly attest to the extent of the need for the utilization of individual labor, as well as to the actual volume of such activity in rural construction.

The practice of applying the labor of temporary brigades in the cultivation of some agricultural crops, in road construction, in timber procurement, and so forth is also widespread. Volumes of labor activity not encompassed by socialized forms are also significant in the social and cultural sphere. According to the evaluation by the Scientific Research Economic Institute of the USSR Gosplan, medical services in the volume of 2 billion rubles are annually provided in such a manner and coaches are paid about 1.5 billion rubles. To meet the population's needs, private individuals annually perform various services worth 10 to 12 billion rubles.

The existence of the population's ever increasing demand for goods and services created the social prerequisites for an extensive development of individual labor activity even under conditions when many of its types were not stipulated by legislation and by delegated normative acts and a number of them were expressly prohibited. The adoption of the law dated 19 November 1986 and stimulation of citizens' individual labor activity by the state cannot fail to bring about a further expansion of the sphere of its application. The number of various cooperatives alone, as one of the forms of individual labor, will not be below 3,000 in the RSFSR by the end of 1987.

To be sure, the decisive role in the elimination of the commodity shortage belongs to public production. For example, in accordance with the Overall Program for the Development of Consumer Goods Production and the Service Sphere for 1986-2000 the volume of paid services provided to the population by state service organizations should increase 2.1- to 2.3-fold during the next 15 years and nonfoodstuff production, 1.8- to 1.9-fold. However, as long as the assignments of this program are not fulfilled satisfactorily, the quality and structure of consumer goods will not meet present requirements. This is indicated by the fact that the amount of unmarketable and shopworn goods in state and cooperative trade rose 82 percent during the years of the 11th



Five-Year Plan, while during the same period the production of consumer goods increased by only 21 percent and commodity turnover, by 16 percent.

Having examined the existing situation, the Politburo of the CPSU Central Committee again drew attention to the need to stir up, along with the development of paid services by all state enterprises, individual labor activity in the sphere of consumer goods production and provision of services for the public (5).

Research shows that there are considerable labor resources for the development of the population's individual economic activity outside the framework of public production. In the country by now there are 55 million pensioners and 5.5 million students at day departments of higher educational institutions and at secondary specialized educational institutions. There is also a large number of women engaged in housekeeping and in child care. Many of them wish to participate in socially useful labor under conditions acceptable to them.

The policy of developing individual labor activity and the legal and organizational measures aimed at its realization evoked a lively exchange of views among specialists in connection with the social nature of nonsocialized production under conditions of the mature socialist society. There is no doubt that an expansion of the sphere of individual labor at present is dictated by factors fundamentally different from those during the New Economic Policy and that it has a social and economic content different from that existing during that period. The reasons for the development of individual labor activity lie in the rapid rise in the level of the people's well-being and in the expansion of the population's social and cultural needs, not in the weakness of the material base for socialist production. The existence of activity not controlled by the state was due, in particular, to the stagnant phenomena in the country's social and economic development, whose elimination was the aim of the restructuring strategy determined by the 27th CPSU Congress. An expansion of individual labor activity is one of the restructuring tools, which will contribute to drawing heretofore unutilized material, monetary, and labor resources into the social and economic sphere.

Article 17 of the USSR Constitution points to the possibility of carrying out individual labor activity in the modern Soviet society and notes that it is allowed in accordance with the law in the interest of society. The existence of a social stratum of individual producers possessing implements and means of labor and producing and selling their products (services) signifies the existence of a special social group with a specific status, interests, and roles differing from similar characteristics of individuals engaged in public production. The social interests of individual producers and their associations do not coincide always and in everything with the goals and tasks of public production.

Research by specialists and the experience in the utilization of individual labor activity in European socialist countries show that, when demand exceeds supply, the individual producer dictates his terms to the consumer, deriving the maximum profit. The experience in the beginning of mass utilization of individual labor in our country also confirms this pattern. Owing to this, the differentiation of the population's monetary income not always determined by the quantity and quality of expended labor can be intensified. The aim of small commodity production facilities to secure high earnings serves as the prerequisite for the outflow of part of the labor resources from public production to the sphere of individual labor. Right now in public dining cooperatives established in the RSFSR more than one-half of the workers are individuals who have left public dining enterprises in order to work in the individual sector. The activity and labor discipline of public production workers engaged in individual labor activity after basic work can be lowered and their interest in raising their occupational level and improving their skills can be weakened. High income from individual labor and a more significant differentiation of the population's income can give rise to negative phenomena in the social and moral sphere. There is the possibility for an increase in small-proprietor frames of mind.

Owing to such socially negative phenomena, antisocial views of a mercenary orientation can be formed. In turn, they can be realized in behavior worsening the criminological situation in the sphere of individual labor activity. This is also confirmed by the previous experience in the utilization in our country of individual labor in the sphere of consumer goods production and provision of services for the population. In addition to involvement in prohibited types of small industries and violations of the order of handling them, the sale and purchase of property knowingly acquired in a criminal manner, its misappropriation from public production, speculation, consumer fraud, tax avoidance, and so forth took place in this sphere. To a significant extent this was due to the fact that, owing to socially unsubstantiated restrictions on individual labor activity, the role of a social partner of public production was not imposed. After the adoption of the Law on Individual Labor Activity this reason was eliminated, nevertheless the problem of ensuring legality in this sphere is very urgent. It is necessary to implement a set of measures of a legal, organizational, and economic planning nature with a view to ensuring the attainment of the goals set by society and preventing various social distortions, including infringements of the law in the activity of the individual producer.

The task concerning an accurate interface of individual management not only with the goals and tasks of public production, but also with its infrastructure, also arises. It is necessary to integrate public and individual management into a single economic organism so that each one of them may contribute to the functioning of the other and they may jointly ensure the most rapid and efficient attainment of the goal set.

The foundations for the accomplishment of this task were laid down by the Law on Individual Labor Activity and by the delegated normative acts issued as its development. The law establishes the principles and goals of such an activity, as well as the forms of its implementation (article 1), determines the range of individuals, who can participate in it (article 3), the sources of material and technical provision for such labor (article 4), and the duties of state bodies in providing assistance to citizens engaged in individual labor (article 5), and indicates the procedure of legalizing citizens' labor activity outside the framework of public production (articles 6 to 10), its possible types (chapters II to IV), and the forms of controlling it (chapter IV). The decrees of the USSR Council of Ministers on the procedure of granting credit and paying pensions to citizens engaged in individual labor activity, on establishing cooperatives for various purposes, and on approving their model charters are of great importance for the integration of individual and public management. Normative acts of the USSR State Committee for Labor and Social Problems, the USSR Ministry of Finance, the USSR Ministry of Justice, the USSR Ministry of Health, and the USSR State Committee for Material and Technical Supply determine the conditions and procedure of implementing certain types of citizens' individual labor activities, their material and technical provision, formulation of contractual relations with socialist enterprises, and so forth not regulated by the law dated 19 November 1986. A set of legal, organizational-managerial, and financial-economic measures for developing relations between public and individual producers and for linking the sphere of individual labor with the economic structure of public production has been worked out. Depending on the forms of organization of individual labor activity the degree of its association with the organization and economy of national economic structures is differentiated. Cooperatives established under national economic management bodies, associations (enterprises), and organizations are most closely connected with them. The procedure and conditions of their operation are approximately the same as at corresponding state economic subdivisions. The conditions of citizens' individual labor on a contractual basis, as well as within temporary construction brigades, are also comparable with public production. The sphere of public production affects to the smallest degree the conditions of citizens' individual labor based on a patent or a registration certificate.

However, the enumerated legislative and delegated normative acts determine only the basis for the integration of individual and public production. In order to link them into an efficiently functioning complex economic system, it is necessary to develop appropriate legal, organizational, and economic planning measures. In this case, in our opinion, ensuring the planned development of individual labor activity and effective state control over its implementation is of paramount importance.

The existence of the sphere of individual labor activity under conditions of the planned economy and the inclusion of individual people and their cooperatives in the

structure of economic relations objectively presuppose a planned regulation of such interrelations. A coordination of private and public interests is necessary both for stimulating individual labor activity and for ensuring public interests.

Apparently, it is advisable to give state enterprises in a planned manner an opportunity to sell above-standard stocks of physical assets and stale and unmarketable goods in the sphere of individual labor. Even when these goods are sold at lowered prices, the state can obtain substantial funds.

The territorial aspect of individual labor planning is also very important. It is well known that the practice of employing residents in a number of the country's regions with a surplus of labor resources (North Caucasus, West Ukraine, and so forth) in temporary and seasonal work by enterprises and organizations experiencing a shortage of manpower has become widespread. At the same time, however, problems with labor resources are often aggravated in places from where workers depart. For example, more people annually leave Armenia for work in temporary construction brigades beyond the republic's boundaries than are engaged in the republic's rural construction. In 1984 a total of 26,000 people left rural areas in the Chechen-Ingush ASSR for participation in such work. At the same time, 20,000 city dwellers were assigned to harvesting on the republic's kolkhozes and sovkhozes. A planned enlistment of the population from the country's other regions in such work in the form of individual labor activity would help to alleviate the negative consequences of the spontaneous movement of manpower.

V. I. Lenin's conclusion on the need for "the strictest control on the part of society and on the part of the state over the measure of labor and the measure of consumption" (6) fully applies to the sphere of individual labor, because it is based on the main principles of social justice of the socialist society, the lack of exploitation of man by man, and remuneration according to labor. Executive committees of local soviets of people's deputies should control citizens' observance of the procedure of individual labor activity (in accordance with article 22 of the law dated 19 November 1986). Nevertheless, there is reason to assume that control over the content and result of work by the individual producer is not yet sufficient.

The experience in the use in the Estonian SSR of contractual forms of work on domestic services for the public, under which a fixed part of the proceeds is transferred to the state, shows to what this leads. Along with an indisputable economic effect the application of such forms had negative consequences. A total of 1,727,000 people worked under these conditions in the sphere of domestic services for the public in the Estonian SSR in early 1987. The productivity of their labor was 25 percent higher than the average sectorial productivity. At the same time, during a check it was established that

under the guise of contractual work private entrepreneurial activity began to be organized and actual income was hidden in order to lower taxes.

It is necessary to fully realize V. I. Lenin's requirements for general and universal recording and control in all management spheres, including in the individual production sector (7). This will make it possible to coordinate private and public interests and to place a barrier against the extraction of unearned income and utilization of socialist property for mercenary purposes.

### Footnotes

1. See: "Materialy XXVII syezda Kommunisticheskoy partii Sovetskogo Soyuz" [Materials of the 27th Congress of the Communist Party of the Soviet Union], Moscow, Politizdat, 1986, pp 44, 45, 47.

2. See: "Materialy Plenuma TsK KPSS 27-28 yanvarya 1987 g." [Materials of the Plenum of the CPSU Central Committee 27-28 January 1987], Moscow, Politizdat, 1987, p 9.

3. See: A. Makovskiy, "Law on Individual Labor Activity" SOVETSKAYA YUSTITSIYA, 1987, No 2, p 6.

4. See: V. M. Rutgayzer and Yu. Ye. Shevyakhov, "Distribution According to Labor," EKO, No 3, 1987, pp 17, 20.

5. See: PRAVDA, 9 May 1987.

6. V. I. Lenin, "Poln. Sobr. Soch." [Complete Works], Vol 33, p 97.

7. See: V. I. Lenin, op. cit., Vol 36, pp 63, 148, 199-202.

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"Planovoye khozyaystvo", 1987.

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### Plans for Reform of Pension System Outlined 18280159 Moscow SOTSIALISTICHESKIY TRUD in Russian No 6., Jun 87 p 3

[Article by M. Lantsev, doctor of economic sciences:  
"Pensions. Reform Problems"]

[Text] Among the urgent problems of social development, the reform of working people's pensions is one of the most important in terms of scale and significance. The new law will essentially be the fourth pension reform in the history of the Soviet state. The first was carried out immediately after the Great October Socialist Revolution directly under the supervision of V. I. Lenin in 1918-1922; the second—in the early '30's, and the third in 1956, when the Law on State Pensions was adopted. Today, over 56 million persons or one-fifth of our country's population receive pensions totalling 45 billion

rubles a year. We note that compared with 1965, the number of pensioners has increased 1.7-fold and expenditures have increased 4-fold, which attests to the continuous concern of the party and the government for the financial plight of labor and war veterans.

The social significance of pensions is determined not only by their scale, but also by the fact that they are closely intertwined with the interests of the working people and work collectives and the interests of all society. Most pensions are life pensions. The "pension" period occupies a considerable place in the life of every person: on the average, 16 years for men and over 24 years for women. The status of pensioners in society is an important component of the socialist way of life.

As a result of the aging of the population, the share of persons reaching pension age will continue to increase in the next decade. Even now approximately three million persons apply for pensions in the course of the year. This means that approximately 100,000 persons are daily introduced to pension legislation, its terms and norms not abstractly but concretely, as they apply to them, because this legislation predetermines their financial plight in the future. Pensions affect the interests of every family to one degree or another. A continuously renewed cohort, being introduced to the terms of pensions for the first time, tries to understand why one or another norm exists and expresses its attitude toward them. The possible directions of improvements in pensions are widely discussed in work collectives, in the family, at meetings with friends and acquaintances, and even in public transit. Each of us will be a pensioner some day. In order that this transition be normal, it is important to understand that people retiring on pension are particularly sensitive to any manifestation of social injustice.

Considering the great and growing significance of supporting those who are unable to work under modern socialism and its role in the party's social policy, the Politburo of the CPSU Central Committee has adopted the decision to draft a new pension law for the working people. The decision itself contains a number of fundamental principles. The new law must be uniform for all working people; it must be the basis for further improving the living conditions of labor veterans and must determine new forms for stimulating the more active participation of pensioners in social life and production. Proposals from the public, scientific institutions, enterprises and citizens reaching central organizations, the press, radio and television must be taken into account on a broad democratic basis in the process of its preparation. The draft law will be the subject of public discussion.

The impressive scale of the pension system in the USSR, its impact on many aspects of the life of Soviet man and its influence on social production require the deep and comprehensive study of the status of pensioners, the careful analysis of the socioeconomic relations that actually exist, the legislation in effect, and the scientific

substantiation of ways of improving it with due regard to suggestions by the working people and in particular by pensioners themselves. A broad range of scientists—economists, jurists, sociologists—must take part in the elaboration of topics associated with the law in order to scientifically substantiate the basic terms and norms of pensions and to help to foresee the possible social and economic results of their introduction.

According to Marxist theory, the distribution of the social product under socialism must begin with the allocation of certain parts for the formation of funds for those who are unable to work, funds for the joint satisfaction of needs, and insurance funds, whereupon the remaining part can be distributed according to one's labor.<sup>(1)</sup> Marx noted that both necessary and surplus labor must include the "quantity of labor that able-bodied members of society must expend for the benefit of those of its members who are not yet or no longer able to work."<sup>(2)</sup> These theoretical principles, which have been developed and concretized in Lenin's insurance program and Lenin's decrees on social security, which were promulgated during the first years of Soviet power, reveal the fundamental features of the economic and social nature of pension security under socialism and make it possible to understand its essence.

Three main conclusions stem from these principles.

First, pensions are a **form of material support for society's members who are unable to work** based on the state's common resources.

Second, the **pension fund**, like other funds for persons who are unable to work, is **formed** not from funds that have been accumulated in the past but from the labor of society's able-bodied members for the benefit of its members who are unable to work at the present time.

Third, **pension support for persons who are unable to work is not part of the wage system** and cannot perform the functions inherent in this system. The connection between pensions and labor and the labor contribution is secondary to its main goal—providing the person who is unable to work with the means of subsistence.

Accordingly the level of pensions must reflect, in addition to the working person's labor contribution prior to retirement on pension, distinctions in the social and economic conditions of the life of individual categories of persons unable to work, their family status, their cost of living, which depends on their place of residence, and the specific needs of individual groups of persons who are unable to work. The correlations between the level of the pension and the level of affluence of various categories of persons who are unable to work must be based on an objective evaluation.

In addition to this, pensions for working people must constantly strengthen the uniquely socialist principle of the state system [gosudarstvennost]. The state character

of pensions is the highest form of guarantee of the constitutional right of every member of society to material support whenever he or she is unable to work as a result of disability, old age or illness. What is more, the state form of pension security makes it possible to ensure not only equality in the right to a pension but equality in the level of security for working people making the same labor contribution. The state system of pension support also permits the most rational utilization of resources allocated by society for the maintenance of pensioners. The transfer of all or part of the state's obligation for maintaining those who are unable to work to enterprises and to the working people themselves, as has been proposed by some scientists and practical workers, would mean retrogressing to a point where it would be difficult or altogether impossible to guarantee the equality of rights.

Certainty about the future in the area of pension support, which is a characteristic feature of our country's social order, depends to a considerable degree on the stability of legislative norms governing pensions. Therefore, stability and the duration of their application are among the most important principles of the pension system. Thus, when we formulate the new pension law, we should not only resolve urgent problems pertaining to the reform of legislation but should also see to it that the provisions that are adopted retain their effectiveness for the foreseeable future and in any case that they accord with the socioeconomic conditions of our society in the year 2000. Future pensioners of the 21st century are already 40 and 50 years old and they are not indifferent to what they can count on upon reaching pension age.

Pension age in general should correspond to the general goals of our society's economic and social development and should consistently connect pensions to one's labor contribution and should meet the demands of social justice.

It must encompass the entire population since every member of socialist society is a working person [trud-yashchiysya] or a member of a working person's family. Even now, the state in one way or another takes care of all people who are unable to work either by allowing them to retire early, by paying them grants or by placing them in homes for the aged and disabled.

The communality of the labor of workers of state enterprises and kolkhoz workers in the cooperative sector as socialist labor determines the need to ultimately equate kolkhoz workers with blue- and white-collar workers in the social security area. This necessity is the result not only of the social development of recent decades and changes in the content and character of agricultural labor but is also the result of the urgent need to realize the principle of social justice. The existing practice of determining the right to a pension based on the division of

kolkhoz workers into specialists and equipment operators, who are equated with blue- and white-collar workers, and the others for whom less favorable pension norms are still preserved has long ago outlived itself.

Giving full equality to kolkhoz workers on a par with blue- and white-collar workers with respect to pensions would first of all mean increasing their minimum pension almost 1.5-fold. As a result, millions of rural workers will receive a substantial increase in their pensions. In addition to this, quite a large group of kolkhoz workers, who are group III invalids from general illness would acquire the right to a pension for the first time.

The kolkhoz worker's length of service will be equal to that of blue- and white-collar workers. Combining length of service as a kolkhoz worker and length of service as a blue- and white-collar worker will enable many categories of pensioners to raise the level of their pension because it would be feasible to make the size of the pension dependent on total length of service. With this decision, kolkhoz workers will also acquire the right to higher pensions.

Thus the realization of the principle of unity of pensions for all working people will be a new step in the realization of an important sociopolitical task—the reduction of differences in the living conditions of the rural and urban working people.

In resolving problems pertaining to pensions, it should be considered that pensioners are a heterogeneous group. They are people of different ages who consequently have differences in the structure and level of their needs. Among them, women are in the majority because they have a longer life expectancy than men.

The eligible age for old age pensions, which was set in the early '30's does not correspond to the fitness for work of most people formally reaching pension age under present conditions. Because they receive better medical care and have a better understanding of their physical potential, most of these people retain their ability to work at their acquired skill level. This fact is confirmed by the constant increase in the share of persons who continue to work after reaching pension age. While in 1970, 49 percent of the old age pensioners continued working the first year after retirement compared with 61 percent in 1986. Pensions are awarded to many people who are entirely able to work.

In our view, all this attests to the existence of objective conditions for considering the question of changing the eligibility age for old age pensions. However, there are also arguments in favor of retaining the existing pension age for the foreseeable future. Indeed, in the next 15 years, those retiring on pension will be people who were born in the early '30's and '40's, i.e., a generation that experienced substantial difficulties in their life both in childhood and beyond. They were for the most part born

under the conditions of collectivization and industrialization, at a time when it was not yet possible to provide sufficiently rational conditions for the development of children; this was followed by the difficult wartime years and the postwar restoration of the ravaged national economy. In other words, the cohort of those reaching pension age today is heterogeneous.

The existing contradiction can be overcome in the following way: at the same time that the legal right of working people to an old age pension is preserved for men at the age of 60 and women at the age of 55 years, economic incentives can be offered to those who still have the ability to work to continue working beyond that age. The working people themselves can be given the right (based on their own interests) to retire on pension later if the state of their health permits them to work effectively.

The involvement of pensioners in active labor and social activity has different goals for different age groups and hence there must be different methods for encouraging the labor activity of pensioners. Pensioners under 65 years of age (men) and 60 years (women) comprise approximately 40 percent of all old age pensioners. Among this group of pensioners, there is a considerable share of those who have not lost their ability to work. Of importance to these age groups are conditions that orient them toward continuing labor activity, that encourage them to work beyond pension age so that they do not leave social production until their ability to work is in fact substantially diminished or lost.

While in the case of pensioners who have fully retained their ability to work, the main goal is to promote the continuation of their activity under the usual working conditions and in their own specialty, in the case of people who have retained only their partial ability to work, the principal goal is to use this partial ability to work in the interests of production and to create conditions for their effective labor during an abbreviated work day or work week, for transferring them to easier work that is closer to their home, and to improve the organization of work at home. In both cases, society is interested in utilizing the labor potential of the elderly and proceeds from the economic feasibility of using their labor. Therefore, it is possible and necessary to materially reward the work of pensioners who are able to work beyond pension age and to see to it that it is effective. Labor is also useful for the pensioner himself who receives material satisfaction from participating in work, from participating in common efforts, from the knowledge of doing good.

Humane goals are emphasized in the case of pensioners who have entirely lost the ability to work. These people must be given the opportunity of maintaining an independent and dignified life that permits them to escape the alienation and degradation of the pensioner as an

individual and a member of society. Providing the appropriate services to pensioners who are unable to work becomes the basic method of realizing this goal.

The number of the oldest pensioners, 70 years of age or older, is constantly growing and presently comprises approximately 30 percent of all old age pensioners. This group is characterized by the almost complete loss of the ability to work and the emergence of specific needs that are characteristic of very old people. Many of them require social care and outside help. Depending on their condition and the specific conditions, it is obviously advisable to give these pensioners additional maintenance benefits as is done in the case of group I invalids.

Female pensioners who survive their husbands are typically alone; consequently, this aspect of their way of life should be taken into account by pension services.

A substantial share of the pensioners are receiving the pension that was assigned to them more than 10 years ago (they comprise 28 percent of all old age pensioners). Of paramount importance for this group is the extension of the earlier procedure for recalculating pensions that have been paid for a long time to all pensions regardless of their size and the systematic raising of them every 2 years.

In the process of modifying the terms of pension legislation, it should be considered that almost all invalids and participants in the Great Patriotic War have reached the age of eligibility for an old age pension.

Therefore, the law for this category of persons should provide certain benefits and advantages with regard to the conditions for assigning the pension as well as the level of the pension. Patriotic War invalids, for example, having a limited working career as a result of being crippled, wounded or shell shocked in the defense of the Motherland, who have successfully worked the entire postwar period, have earned the right to an old age pension. The question arises: is it just to deprive them of their disability pension upon giving them their old age pension? In our view, such a decision is not legitimate. A pension for a feat of arms should be for life.

The requirements of different groups of pensioners must be carefully analyzed so that their pensions reflect these differences.

In the economic literature every once in a while one sees the term referring to pensioners as "social dependents." On the one hand, there would seem to be a basis for such a definition—after all the pension is paid from social consumption funds that are created by the labor of persons engaged in material production. But on the other hand, a pension is a payment that has been worked for and earned to a former blue-collar, white-collar or kolkhoz worker. Pensioners are working people who themselves at one time created material goods not only to satisfy themselves and their families but also for the

purpose of setting aside some of the goods for members of society who are not yet or no longer able to work. Now that they can no longer work, the time has come for them to receive what they gave others while they were still able to work. For this reason, "dependent" or even "social dependent" is not a suitable term for pensioners because they are also working people, but working people who are no longer able to work. It is not by chance that the Politburo calls the new law the "Law on Pensions for Working People."

For these reasons alone, pensions must be connected with the past labor contribution, which is characterized by length of service or quantity of work and earnings that reflect the quality of labor: its complexity, effectiveness, strenuousness, intensiveness, hazardousness, and other conditions.

Working people, knowing that their labor will be rewarded both now when they are working and also in the future when they are compelled to terminate their labor activity will of course try to work harder. And in this sense it can be considered that pensions and the conditions for awarding them in general influence the effectiveness of labor. However, a certain degree of caution should be used in discussing the stimulating role of pensions. Pensions do not so much stimulate and inspire more intensive, more highly productive labor as correspond to the measure of labor and are commensurate with the worker's labor contribution.

All pensioners have something in common that unites them: the pension that is their principal source of their means of subsistence. But at the same time, the pension does not make pensioners a socially homogeneous group. It can be said that pensioners to some degree recapitulate and reflect the social structure of all society. Pensioners are former workers in different branches, in different occupations, are specialists, white-collar workers, managers, teachers, and physicians who have labored under different working conditions. A pensioner continues to regard himself as a miner, a teacher, a physician, or a scientist. If we fail to consider this fact, we will leave ourselves open to the reproach that we have forgotten the teachers that we have not concerned ourselves with the miners, even though we did not single them out in the past. This is why the norms of the Law being uniform for everyone, must at the same time take into account the diversity and heterogeneity of the social structure of the working people. How can pensions take individual differences into account, how can pensions make a social evaluation of the importance of one or another type of work, the skill level, the character, and the conditions under which the work was performed? All these features for the most part find their reflection in the level of wages. The single percent used to calculate the size of pensions, when applied to different wage levels, makes it possible to preserve distinctions in the social and labor status of working people in the system of social production when they retire on pension. At the same time, it is also necessary to take into account the trend toward the

homogeneity of the status of pensioners compared with people who are still working. With the transition to pension, certain objective reasons for differences in the income level due to the working conditions disappear. There is no need, for example, to compensate in pensions as in wages higher expenditures of physical and mental energy in certain kinds of work. A certain reduction in differences and averaging of the needs of pensioners is seen compared with their needs while they were still actively working.

As in the organization of wages, in pensions there exists the problem of their minimum and maximum size. And if there are no disagreements whatsoever concerning the need to establish a minimum pension, there are several points of view regarding the maximum pension.

The most radical of them is that no maximum pension should be set whatsoever in the belief that the constraint that the pension be 50-60 percent of earnings is sufficient. There is a kind of logic here but certain serious objections also arise. Earnings that substantially exceed the average, for example, at the level of 300-400 rubles a month are for the most part the result of strenuous labor (work performed underground, at metallurgical plants, work involving hazardous conditions or under difficult climatic conditions (in the Far North) as well as with a considerable increase in the intensiveness of labor. When a person leaves production, these factors cease to be operative. There are no greater exertions hence there is no need to compensate them with higher pay. Therefore, pensions do not necessarily have to entirely recapitulate the difference that existed in wages at all levels. They can be reduced within rational and substantiated limits through the introduction of a maximum pension.

At the same time, the maximum pension must be such as to exclude leveling. As we know, the existing maximum pension of 120 rubles a month, which has not changed in more than 30 years, has specifically led to such undesirable consequences. As a result, workers in individual branches and regions of the nation with a high wage level are assigned the same maximum pension even though the labor contribution of each of them, which is reflected in the wage level, was different. If one considers that in accordance with the five-year plan, by the year 1990 the average wage will reach 220 rubles a month, if the previous maximum pension is preserved, the scale of leveling will grow still further since most people retiring on pension will receive the same maximum pension.

If we recognize the necessity of establishing a maximum pension, we will have to find sufficiently objective criteria for determining its size. The existing level of wages in the national economy or the highest wage rate of a worker engaged in work with ordinary working conditions, in machine building, for example, could serve as guideposts in limiting the size of pensions.

The attempt to link the maximum pension to the level of wages is justified to a certain degree. There is a certain measure of logic here: a nonworker should not receive more than a worker; a nonworker should also not receive more than the most highly skilled worker is guaranteed in the level of his wage rate. But both of these methods have shortcomings. First, the guidelines regarding the maximum pension are outside the pension system, which is undesirable. Second, both the average wage indicator and the level of the worker's maximum rate are flexible and often depend on changes in the structure of production or on the realization of tasks and priorities confronting production. They also reflect working conditions and work incentive tasks in certain spheres of application. As a rule, they are not connected with differences in the level of the needs of people who are unable to work.

Returning to the socioeconomic nature of the essence of pensions and their purpose—to satisfy the needs of those who are unable to work, in our view, the maximum pension should be sought not so much in differences in wages as in differences between the minimum consumption budget of those who are unable to work, which may serve as a guidepost for the minimum wage, and the rational consumption budget, that may be the guidepost for the maximum pension. In the light of the foregoing and in the interest of ensuring social justice, we cannot allow pensions to be lower than the minimum budget of people who are unable to work. At the same time, it is not feasible to establish its maximum level higher than the rational budget.

In the present stage, as long as we have not attained a level of production that guarantees the consumption of all workers at the level of rational norms, society is entitled to restrict the level of material support for those unable to work to the level of income that is sufficient but that does not exceed the consumption budget calculated according to rational norms.

The fact that these budgets are calculated and are not approved by state agencies as a norm is an obstacle to the application of minimum and rational budgets of people who are unable to work directly in pension legislation. Nevertheless, the minimum budget of a single worker and a family of four is used as a guidepost in determining the minimum wage and the per capita income for defining low-income categories. On the basis of differences in the minimum budget of a worker and one who is unable to work, it is possible to establish the relationship between the minimum pension and the minimum wage. Since the level of the latter is legislatively established, in our view it is advisable to define the minimum pension in relative rather than absolute terms—in percent of the minimum wage.

As regards the maximum pension, it is most rational to establish it based on the ratio of the minimum and rational budget of people not able to work—1:3. The maximum pension can be arrived at by applying this



ratio to the minimum pension. This 1:3 forms the boundary of a unique "wage" network that differentiation in pension size must "fit."

This does not tell the entire story about urgent problems of pension reform. Many of them, for example, the question of extra pension benefits or of work incentives for pensioners is of such a scale as to require separate study. But at the same time it is important that proposals on relatively particular problems not contradict general principles of pensions and the norms of socialist social justice.

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#### **Problems of Women in Labor Force Examined**

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[Article by N. Rimashevskaya, doctor of economic sciences, professor: "Urgent Problems Concerning the Status of Women (Based on Economic and Sociological Research Materials)"]

[Text] The strong social policy proclaimed at the 27th CPSU Congress presupposes forward, new steps in the solution of the "women's problem" and includes measures to improve women's working, living, and rest conditions and an extension of the rights and responsibility of labor collectives for the work in this area. It is manifested in the revival of the activity of women's councils. The aim of the January (1987) Plenum of the CPSU Central Committee on promoting women to leading posts at all levels of management and in all spheres of society's vital activity is of fundamental importance. Such an orientation presupposes new approaches to the organization of their training and great concern for their occupational growth and for social and domestic services for workers and their family members. The work of the problem council "Women's Social Activity in the Modern World" established at the Academy of Social Sciences under the CPSU Central Committee attests to the increased attention to these problems. The council unites representatives of the most different social sciences, practical workers, and press representatives, which makes it possible to hold discussions in an overall manner, to compare various points of view, and to influence the formation of public opinion through mass publications.

Council meetings are held in the form of a free discussion of reports and scientific "round-table" talks.

An article by N. M. Rimashevskaya, doctor of economic sciences, professor, prepared on the basis of her report, as well as information on its discussion, is published below.

The dynamic social and economic development of public production brings with itself a significant change in people's working and living conditions and an improvement in their well-being. However, giving positive shifts

their due, at the same time, it is important to see the new problems, to clearly imagine at what stage in their solution we are and what else must be done, and to single out the positions requiring solutions in the first place.

From the very beginning of its existence the Soviet regime has radically changed the status of women in society, not leaving "the slightest hint of women's inequality" in its laws. However, as V. I. Lenin indicated, "for women's complete liberation and for their real equality with men there must be a public sector and women must participate in general productive labor" (1). Further developing the idea of women's real equality, he stressed that, of course, it was not a matter of equalizing women in terms of labor productivity, length, conditions, and so forth, but of liberating them from trivial unproductive housework, which does not at all promote the development of women as personalities.

The revolutionary changes that have taken place in the entire system of public relations during the past 70 years have radically changed the status of women and their living conditions, role in the family and society, range of interests, and way of thinking.

Women constitute 53 percent of the country's population and one-half of all those working in the national economy. They work virtually in all production sectors and constitute the bigger proportion of those employed in public health, education, culture, and the production of consumer goods and paid services.

Women participate in state management, representing 30 to 40 percent of the deputies in soviets of different levels—from local soviets to the USSR Supreme Soviet. Women make a big contribution to the development of science, culture, and art and to the activation of public life in our country and abroad.

All the processes taking place in society depend essentially on how women realize themselves in the family and society, how harmonious their activities are, and how they manage to combine all their diverse functions. The health of future generations, as well as the physical and mental state of the male half of the population, depends on how they cope with all their uneasy roles. The more actively and dynamically social processes occur, the more fully women's real participation is manifested in them, thereby determining the social health of the nation as a whole.

It should be admitted that in the evaluation of the status and role of women in our country we were in a state of a certain anabiosis for a long time, ever more actively stressing our significant achievements concerning women's equal rights. We are far from the thought of belittling the importance of everything that has been done for women in our country. The changes in Central Asian republics, where before the revolution the status of women was completely devoid of rights and humiliating, are especially striking. Even in the family women played



essentially the role of slaves, whose husbands or brothers were their sole masters. With their active involvement in production the status of women in these republics has changed not only in the social field, but also in the family, where traditions are relatively stronger. Thus, according to the data of one of the sociological surveys, more than one-half of the Uzbek women are oriented toward work in the public sector and a certain number of men even consider their wives the main family breadwinners (2).

We talked about our achievements for so long and in such a reassuring manner that we missed the moment when it was necessary "to strike all the bells," drawing public attention to women's problems under present conditions in all their depth, acuteness, and diversity. In this connection, in our opinion, it is advisable to examine primarily the entire set of problems concerning the social and economic status of women in the family and society. For such an analysis, in addition to generally available statistical data, we have at our disposal the results of research conducted by the Central Economic and Mathematical Institute of the USSR Academy of Sciences in Taganrog. This is not a photograph, but rather an attempt to interpret specific data and situations and to try to see what usually is not visible on the surface of phenomena.

Economic and sociological research on the entire set of problems at an industrial center, using Taganrog as an example, was undertaken in 1967-1968. Along with the study of public consciousness, forms and methods of ideological work, the content and nature of the pastime of various groups of workers, social consequences of the introduction of the 5-day work week, and other aspects of city life, the population's standard of living was studied independently. The "family approach" became the methodological characteristic of this study. People's living conditions, income, and consumption were examined at a family level ("Taganrog-I" project). Naturally, we could not bypass problems connected with the status of women in the family and society.

A second study of phenomena and processes occurring in the sphere of workers' well-being ("Taganrog-II" project) was conducted in 1977-1978, that is, 10 years later (3).

Its practical tasks were oriented toward uncovering real problems in people's well-being, exposing their content, and determining the ways of solution within the framework of social programs, as well as evaluating the efficiency of social policy during the decade that passed between the two observations. This not only made a comparison possible, but also significantly expanded the field of research in this area.

Problems concerning low-paid and badly-off people, improvement in the organization of wages on the basis of a systematic realization of the labor principle of distribution, state assistance to the family in the education of the growing generation, the material and domestic status of pensioners, the population's provision with housing and property, increase in the efficiency of utilization of public consumption funds, the individual potential of health and factors determining it, improvement in the system of cultural services for the public, stability of the family structure, and so forth were investigated especially.

The examined aspects of vital activity of various population groups and strata organically included the "women's component," which, in turn, made it possible to get an overall idea of social and economic problems concerning the status of women in the family and society.

### **Social Status of Women and the Family's Reproductive Aims**

Our research has shown that at the moment of marriage men and women have approximately the same level of education in terms of its nature, length, and quality. In this sense one can even talk about their equal starting status. This fact was noted both in the research at the end of the 1960's and a decade later. It applies equally to the older cohort of families and people, who got married beginning in 1960, and to the younger cohort (who formed families in 1971 and later). If we single out eight types (or levels) of education, we will obtain the following picture with respect to the older cohort (see table).

Distribution of Couples According to Level of Education at the Moment of Marriage (in %)

		Total men and women	Including With Education							
			Up to 7th grade	7-9th grades	Secondary general	Vocational and techni- cal school without secondary	Vocational and techni- cal school with sec- ondary	Secondary specialized	Incomplete higher	Higher
Older Cohort										
Workers										
men	100.0	9.5	42.1	14.7	20.0	7.4	6.3	—	—	20.9
women	100.0	6.7	46.7	25.3	8.0	10.7	1.3	—	1.3	13.5
Employees										
men	100.0	—	4.2	4.3	4.2	4.3	48.9	10.6	23.5	66.7
women	100.0	1.6	14.5	11.3	3.2	8.1	43.6	—	17.7	21.7
Total										
men	100.0	6.3	29.6	11.3	14.8	6.4	20.4	3.5 7.7	34.0	
women	100.0	4.4	32.1	19.0	5.9	9.5	20.4	—	8.7	17.0
Younger Cohort										
Workers										
men	100.0	—	17.8	30.9	18.4	15.8	0.7	0.6	19.9	
women	100.0	—	16.3	44.6	9.8	11.9	17.4	—	—	10.9
Employees										
men	100.0	—	3.4	23.7	1.7	5.1	35.6	1.7	28.8	45.2
women	100.0	—	4.5	37.9	—	3.6	32.4	1.8	19.8	14.6
Total										
men	100.0	—	13.7	28.9	13.8	12.8	23.1	1.0	8.5	25.4
women	100.0	—	9.9	40.9	4.4	7.4	25.6	1.0	10.8	12.7

\*For the older cohort—during 20 years of marriage; for the younger cohort—during 10 years. People with higher education were not included in the total number.

As can be seen from the presented data, a significant difference is observed in two types of education: general secondary and vocational and technical education (vocational and technical schools). The proportion of those with general secondary education is higher among women, while, conversely, the proportion of those who have completed vocational and technical schools is higher among men.

A similar picture is also characteristic for the younger cohort. However, a higher level of education in general, as well as a slightly bigger proportion of women with complete and incomplete higher education (12 percent), as compared with men (10 percent), should be noted here. At the same time, the proportion of men is much higher among workers who have completed vocational and technical schools. With regard to employees, the proportion of men is also higher among those with higher education (34 percent of the employees are men and 18 percent, women). First of all, a conclusion suggests itself that women, on the whole, having an approximately

equal educational level with men, nevertheless are prepared less in terms of skills and occupations. The shortage of specialized vocational education places them essentially in a relatively lower job position from the very beginning of their labor activity.

The second conclusion concerns women's continued education after marriage and their opportunities for a real improvement of skills. Here the situation is such that in both cohorts the proportion of women continuing to improve their education during the subsequent period of their life is one-half of that of men. This means that after marriage the couple's, especially women's, situation changes sharply. Men assume the role of main breadwinners, which demands from them an active participation in public production. As a rule, women lower their occupational activity in connection with their duties as wives and mothers. According to our calculations, after marriage 83 to 87 percent of the working women do not continue their education, do not improve their skills, and with some exception continue to work at the level of initially acquired knowledge.

These phenomena should also be viewed from economic positions, from the point of view of the return of sectors, where mainly women are employed. As we have noted,

they include primarily public health, education, and culture, that is, a social infrastructure directly connected with "investments" in man. Owing to the limited opportunities for women's occupational growth, manpower skills in these sectors and, consequently, the quality of the services created (provided) by them suffer.

The third conclusion concerns the reproductive aims of families. Survey materials show (as applied to the modern European reproduction regime) that almost 78 percent of the first children are born during the first 2 years after marriage. The average age of a family during the birth of the first child is 2 years. The second child appears during the 5th or 6th year of marriage. By the 5th year about 90 percent of the families already have children (naturally, of the parents that will have them).

For a full picture we will add that, according to our research data, about one-fourth (24 percent) of the total number of families do not have children and out of the total number of families with children two-thirds have one child and a little more than one-third (36 percent), two. The rest, that is, in practice, 1 percent, bring up three children and more. Thus, the family realizes its child bearing functions actively during the very first years of its existence. This cannot fail to affect the social and economic status of women and their occupational and skill growth.

### **Women's Labor Careers, Working Conditions, and Wages**

According to our data, after the birth of a child one sixth of the women temporarily stop their labor activity for 4 years, on the average, not taking the statutory leave into consideration. A significant proportion of women change their places of work and transfer either where incomplete work time regimes are applied, or to sections with a less strict labor regime, and a small part, directly to preschool institutions. The motives for their actions are the most humane—creation of conditions, under which contacts between mothers and young children are facilitated and extended, but a decline in their occupational status is the consequence. Whereas previously this was observed mainly among women in work specialties, gradually, in younger generations such unfavorable career changes become typical for all social groups. More and more women change over to less skilled jobs during the period of child bearing and upbringing. Our research has also revealed another pattern, that is, historically, the value of motherhood increases and married women more and more frequently give up labor careers for the sake of children. At the same time, however, such a phenomenon as giving up child bearing is also observed.

The characteristics of women's labor careers indicated above determine the lag in the rates of growth of their earnings as compared with their husbands' wages during the first 10 years of marriage. Then 10 to 15 years later women's wages begin to grow more rapidly than men's wages. Unfortunately, however, this growth is often

connected not so much with a rise in the educational and occupational-skill level as with the change in the occupation, place of work, and sector. From light industry or construction women change over to heavy industry sectors and their employment at harmful sections of labor increases.

Women's employment at work places requiring big physical loads surpassing the physiological capabilities of the female body decreases too slowly. One-fourth of the women mention heavy physical labor as the reason for constant exhaustion. The utilization of female labor is often allowed at jobs, which in their physical and other parameters usually require "male hands," for example, the work of electric welders, crane operators, and so forth. It seems that today we can and should have a more careful attitude toward evaluations of such facts, when women go into traditionally male occupations, because this can have unfavorable consequences for their health and the health of their children.

The motives for such behavior on the part of women are also known. They are determined at least by two circumstances: first, by the attempt to compensate for the relative production lag during the preceding period and, second, by the desire to attain a certain level of wages and, consequently, of old-age pensions. In addition, there are also reasons of a particular family nature for the fact that women change over to harmful and heavy sections of work in detriment to their health. This concerns trouble in the family, mostly connected with the husband's drunkenness, which, in turn, leads to a displacement in the traditional distribution of family roles, when the functions of main breadwinners are shifted to women.

At the all-Union Women's Conference held in February 1987 many speakers openly discussed the fact that the proportion of representatives of the beautiful sex among those engaged in unskilled labor at heavy and harmful production sections was too big. It was noted that there was a persistent tendency toward "eliminating" male personnel from harmful and physically heavy production facilities and replacing the vacated places with women. At the same time, as our research has shown, only one-fourth of the women are able to rest well from nervous and physical tension after work. However, the others, owing to the fact that they are overloaded with family and domestic concerns, do not rest sufficiently.

Direct data on the change in the social status during the period of labor activity indicates that 10 percent of the women have changed over to lower positions and the rest are divided into two equal groups (45 percent each): The positions of some have not changed and those of others have risen. With respect to men a positive labor dynamics is observed in more than 80 percent of them, whereas almost one-half of the women remain without advances in the official hierarchy and, if they are promoted, their promotions are not as significant as those of men.

In connection with the characteristics of labor promotion it is important to objectively evaluate women's real wages. After all, one of the most important principles of socialism—equal pay for equal labor—has long been realized with respect to women in our country. For the same job men and women receive the same earnings. Nevertheless, the average wages of women are much lower than those of men.

Unfortunately, our state statistics (apparently, considering the problem exhausted a long time ago) does not keep a record of earnings by sex. Therefore, representative information on the differences existing here can be obtained only from data on average wages in economic sectors, singling out those where the proportion of employed women is especially high.

A clearer idea of the differences in earnings by sex can be obtained on the basis of specific economic and sociological surveys. Thus, both our projects ("Taganrog-I" and "Taganrog-II") have shown that the ratio of the average wages of men and women is approximately 3:2, that is, on the average, women earn one-third less than men. This ratio has not changed during the 10 years that have passed between the two observations. Incidentally, according to our calculations, a similar ratio also existed in the early 1960's.

The differences in the earnings of men and women are already formed at the initial stage of their labor careers. True, at the age of 20 the average wages of men exceed the earnings of women of the same age by only 15 percent. As we saw above, the reason for this difference lies not so much in the educational and skill level as in the sphere of labor application. However, by the age of 30 this difference increases sharply, reaching the indicated ratio (3:2). Whereas, according to our evaluations, the difference in earnings resulting from the differences in the sphere of employment is limited to 15 percent, the remaining lag is the result of actually unequal opportunities for women's advance connected with their role functions of mothers and workers.

The fact that women's occupational growth slows down sharply after the appearance of a child in the family should be kept in mind during an evaluation of the proposed increase of up to 3 years in the length of leaves for mothers. On the one hand, this is a social achievement facilitating children's upbringing during the first years of life, but, on the other, such a measure can limit the possibility of improving skills and, consequently, hamper the movement toward a real equality of men and women.

Apparently, another reason for the actual inequality in the average wage level for men and women exists. It is rooted in some traditions of thinking and in the inertia of our ideas that men—fathers and husbands—should be the main family breadwinners. Therefore, it is believed that in sectors with the preferential employment of

women wages can be relatively lower even if the conditions of labor, its intensity, and so forth in no way can be evaluated as more favorable and easy, as compared with averages ones. This is characteristic of textile, footwear, and food industries, education, and public health.

Comparing in the surveyed data the differentiation of men's and women's wages (series of their distribution according to wages at the end of the 1970's), we discover the following: Whereas among women almost one-third had earnings of less than 100 rubles, among men such earnings comprised only 2 percent. Whereas modal (typical) earnings among women were 100 to 140 rubles, among men, 180 to 240 rubles. The proportion of women with wages of more than 250 rubles was quite negligible.

All of us remember how at one time Prof B. Ts. Uralnis put forward the thesis "spare men!" and, seemingly, substantiated it with indisputable proofs, that is, higher death rates in men, including of an able-bodied age, and their shorter lifespan. At the same time, our research indicates that in all indicators directly or indirectly characterizing the population's health (degree of spread of chronic pathology, the severity of diseases, their duration, and expenses on treatment and drugs) women are in a less favorable situation than men.

Within the framework of the "Taganrog-II" project the population's health was specifically studied for the first time in order to clarify the factors affecting man's physical and psychoemotional state. For an evaluation an integral five-point scale indicator was used. On the one hand, it took into consideration the results of physical examinations (data of laboratory analyses and medical examinations and the results of treatment in medical institutions) and, on the other, subjective evaluations by respondents of their health. According to this survey, the average evaluation of health in women was 3.6 points, as compared to 3.9 points in men. At the same time, the proportion of low evaluations ("1" and "2") in women was twice as high as in men. These differences were most sharply expressed in the age group of 35 to 40.

Researchers attribute the high male mortality observed virtually in all developed countries throughout the world to a number of reasons of a genetic and social nature, in particular to the genetic characteristics of the body and the high level of traumatism, which to a significant extent is connected with drunkenness and alcoholism.

The conclusion, at which we have arrived, is that, despite the more considerable length of life, its quality in women, from the point of view of their health, is lower than in men. In our opinion, two basic reasons clearly appear here (although they do not exhaust their entire set): first of all, the significant employment of women at sections with harmful and difficult working conditions and, second, a dual load (at work and at home).

### Women's Participation in Consumption of Cultural Benefits

The main characteristics of women's consumption of cultural benefits are determined by the limited volume of free time. However, the data received by us indicate that in itself the amount of free time for cultural activity is not as appreciable as can be expected. Displaying approximately the same activity in this field, men and women are oriented toward different types of pursuits: Women toward reading books and journals and attending theaters, museums, and concerts, while men, toward the consumption of information (from newspapers, television broadcasts, and so forth).

It is interesting that the intensity of consumption of cultural benefits is closely dependent on the family development phase. Married couples have the highest integral evaluation in this sphere during the period before children's birth. The differences in the intensity of consumption between men and women are insignificant here. The birth of children greatly changes the structure of cultural leisure toward a decrease in activities outside the home. The consumption of cultural benefits by women in incomplete families in terms of all types of activities is below the average level.

Proceeding to conclusions and suggestions, I would like to note that we should not interpret in an excessively broad manner the relations revealed in the course of "Taganrog-I" and "Taganrog-II" research and overlook the characteristics of the city where it was conducted, as well as the fact that the last observation took place in 1978. However, it would be even worse to dismiss the revealed unfavorable tendencies, considering them a thing of the past and a passed stage. A comparison of the previously obtained conclusions with figures, facts, and observations accumulated during subsequent years makes it possible to affirm that in many respects they also remain correct today and, above all, can help in the forthcoming work on implementing a strong social policy in the sphere of women's labor and way of life.

### Step After Step to Real Equality

Women's and men's equal rights were constitutionally confirmed in the USSR for the first time in the world. This equality has now become the norm of social life. However, according to the laws of dialectics, women's emancipation, in reality, has given rise to new problems. Contradictory processes and phenomena, although occurring in parallel, are observed.

The high level of women's education and their virtually complete employment in public production signify that the social make-up of this population category has changed in 70 years. Labor and public activity and participation in the collective's life have become a form of their self-expression, which, previously, was mostly characteristic of men. Owing to their labor activity and public recognition, they have also acquired a taste for

independence. This process cannot stop. Together with social development and scientific and technical progress it will be activated, involving ever newer strata and groups of women. Therefore, arguments that, taking women's double load into consideration, it would be useful to free them of employment in public production, or to reduce it, are far from reality. It is necessary to understand and accept the objective need for the process of movement toward men's and women's real equality.

At the same time, inertial ideas that women's main function is to give birth to children and to create family comfort, compensating with their housework for the shortcomings existing in the development of the social and domestic sphere and for the low quality of its work, are still firm in everyday—and not only in everyday—consciousness. Ideas about higher wages for men, who could support the family themselves, are expressed and defended. The idea that women are second-rate workers exists in close interaction with this position. Although 60 percent of the specialists with higher and secondary education are women, in reality, very few as yet are involved in the management of production, the national economy, enterprises, organizations, and individual subdivisions. The following fact was cited at the all-Union conference: There was only one woman per 12 chief engineers and other chief specialists.

During the last few decades we have made very little progress in the direction of involving women in the decision making process even in the areas of activity, where their employment is especially high. As a result, the situation is formed in such a way that in the sphere of public production women predominate at work places, which are less prestigious and have less attractive and more difficult working conditions, where low skills are needed. In the sphere of the family and daily life the woman assumes the main burden of concerns connected with the birth and upbringing of children and with the organization of housekeeping, which is customarily called the "second shift."

How does this affect women's social behavior? Three lines of behavior characteristic of women's various groups and strata can be singled out conventionally: To resign oneself to the existing situation and to modestly carry a double burden; to resist the situation that has been created, expressing protest in various forms, which, in reality, leads to a rise in divorces, whose number has now increased considerably on women's initiative; to give up marriage and even the born baby, to drink, to smoke (40 percent of the smokers are women), and so forth.

How are the problems arising in this case solved? Here, without going into details, we will schematically give the following directions:

First, financial assistance to the family in bringing up the growing generation provided through the development of a network of public education for children, as well as

through a system of allowances. At present children's institutions include 16.5 million children. An increase in their number in order to fully meet the need for them is the purposeful intent of their development. However, our research indicates that the quality of services is now the main problem. The deficiency in quality is one of the reasons for a decline in the rates of growth of the need for children's institutions. The significant shortcomings in their work impel many parents to search for different methods of home care for children. According to our data, more than one-half of the children that do not attend preschool institutions remain home precisely for this reason. Whereas previously maternal care was the main method of home care for children of primarily the youngest age, that is, under the age of 1 or 2, during recent years this form of home upbringing has also begun to be extended to children of an older preschool age. In order to improve the quality of services for children, it is necessary to see to it that workers' (especially educators') skills are improved, to reduce the number of children in groups, and to improve equipment and the material and technical base of these institutions.

The payment of allowances to badly-off families and families with many children is the second direction. Expenditures are considerable here. However, during a study of the efficiency of these types of measures it has turned out that these allowances duplicate each other to a significant extent, increasing the birth rate where it is sufficiently high as it is. In our opinion, it is advisable to take stock of the entire system of existing allowances and to develop a flexible scale of a uniform family allowance. Pregnancy and childbirth allowances, as well as allowances for the care of newborn babies, should form its basis. Calculations show that, owing to such a redistribution of funds alone, it will be possible to increase allowances for a partially paid leave up to 50 rubles per month (35 rubles are now paid).

A fundamental improvement in the housing-municipal and domestic conditions of family life is the third direction, which, in my opinion, is now the most important for the solution of women's problems. It is customarily said that a contradiction exists between the functions of women—workers and mothers. In our opinion, this contradiction does not exist in reality, but there is a contradiction between the family's needs for a normal reproduction (which includes both labor and reproductive activity) and the real conditions of their implementation. However, the woman falls under the special double load only because family and domestic functions are confined to her—today even to a greater extent than earlier. In all nations and at all times women gave birth to children and were mothers and workers. Contrasting their reproductive and labor functions is the result of the superficial idea of more in-depth processes and phenomena. In principle, family and women's difficulties are

connected not with the birth and upbringing of children, but with the housing and domestic conditions, under which these processes occur in real life.

In our opinion, the general line in the solution of social problems concerning women's real equality should be directed not toward reducing their employment in public production owing to a shortened work day (week) and other benefits, but toward improving living conditions in the broadest sense of the word. They can and should enjoy these kinds of advantages during certain periods of their life—this is clear. However, during the remaining time women's main load is connected not with bringing up children (in the sense of direct care of and contact with them), but with overcoming municipal and everyday difficulties, and is the consequence of the shortcomings in the organization of trade and transport services, lack of housing organization, and so forth. Under normal working and living conditions for mothers, as, incidentally, for fathers as well, the care of children and their education is a pleasure and satisfies man's natural need. The "second shift" for women arises primarily owing to the lack of development of the social infrastructure, lack of necessary municipal conveniences, trips to stores in search for scarce goods, children's diseases owing to the low quality of services and work of children's institutions, and transport overloads.

Daily life should be organized so that it does not prevent women from showing their worth in full measure. Otherwise a vicious circle is formed: Difficulties in daily life lead to a decrease in labor and social activity and this, in turn, to the perception of women as second-rate workers, who are forced to engage in nonprestigious heavy work, which causes their dissatisfaction and a decrease in their social activity. The task lies in breaking this circle.

#### Footnotes

1. V. I. Lenin, "Poln. sobr. soch." [Complete Works], Vol 39, p 201.
2. "Sotsialno-kulturnyy oblik sovetskikh natsiy (po materialam etno-sotsiologicheskogo issledovaniya)" [Social and Cultural Background of Soviet Nations (Based on Ethno-Sociological Research Materials)], Moscow, Nauka, 1986, pp 141-142.
3. Basic Provisions of the "Taganrog-II" Research Project are published in the journal *Sotsiologicheskiye Issledovaniya*, 1985, No 4.
4. Cohort is the population of families (people), in whom a certain demographic event has occurred during the same period; in this case, contraction of marriage.

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## MOTOR VEHICLES, HIGHWAYS

### RSFSR Highway Deputy Minister on Mismanagement Problems

18290206 Moscow *EKONOMICHESKAYA GAZETA* in  
Russian No 36, Sep 87 p 14

[Article by A. Nadezhko, RSFSR deputy minister of  
highways: "Anatomy of a Bias"]

[Text] The motor-vehicle manufacturers placed their bets on increasing the volumes of heavy-truck production. In this connection, there has been a substantial decrease in the proportion of lightweight transport, which is the most economical mode for the majority of hauls. But just why did it happen that way?

There seems to be no end to this story in sight. Let me remind you that it was during the 1960's that the discussion began as to what kind of truck our country should put into mass production. At that time the ZIL-130 was such a motor vehicle; it had a carrying capacity of 5 tons and a per-axle load of 6 tons.

Upon examining the prospective trends for developing motor-vehicle manufacturing, the people in the USSR Ministry of the Automotive Industry came to the conclusion that it would be simplest to achieve the greatest effect by modernizing this motor vehicle somewhat. Calculations showed that this would successfully increase its carrying capacity to 6 tons. To be sure, in this case the per-axle load would increase to 8 tons.

Let me explain for the sake of the nonspecialists why this is a bad thing. The fact is that the axle load (which must not be confused with the carrying capacity) determines what force the motor vehicle exerts on the road. For a long time GOST established the following two types of such loads: 6 and 10 tons. By proceeding from this, they also made the design calculations for road paving surfaces. And so it turns out that 90 percent of this country's highway network and 60 percent of its bridges have been designed to withstand an axle load amounting to 6 tons. And only roads in the highest category, of which there are not very many at all, hold up under trucks with an axle load amounting to 10 tons. And so the motor-vehicle manufacturers' decision sharply limited the sphere of this vehicle's utilization and made it uneconomical.

Nevertheless, the USSR Ministry of the Automotive Industry, in pursuing a growth in the motor-vehicle tons being turned out (there is such an indicator; it establishes how many freight-tons can be hauled in toto by all the motor vehicles rolling off the plant assembly lines), was able to convince the government of the correctness of its actions. Since the mid-1970's the ZIL-130-76 has been manufactured as a mass-produced truck.

It was the very same period which witnessed the construction of this country's largest plant for producing heavyweight trucks—the Kama Plant. The resolution concerning the construction of this enterprise specifically stated that this would be a complex of plants engaged in manufacturing triple-axle diesel trucks, designed to operate over the entire network of general-purpose roads. "Over the entire network of roads" signifies a mass-produced motor vehicle and hardly a giant. But what would happen to the growth of motor-vehicle tons? Because, of course, this could not be revised to fit into the scheme worked out for the ZIL-130. It is blocked by GOST 9314-59, on the basis of which the relevant paragraph in the resolution was also formulated. They would scarcely succeed in getting around a normative document twice.

Then the Ministry of the Automotive Industry began to follow a policy of what is called "going for broke." If the standard gets in the way, it must be abolished. And they began sending out documents to various levels portraying the rainbow-colored, optimistic prospects that would result from the removal of this obstacle. Tens of thousands of additional motor-vehicle tons gleamed in the distance.

The substantial figures which could have been entered into the account books turned the heads of many persons. Only the highway people objected, but it was decided not to heed them, and in August 1979 GOST 9314-59 was abolished as outmoded. It was abolished without even seeking to replace it by another one, although by this time the USSR Ministry of Transport Construction's Soyuzdor NII [Scientific Research Institute] had prepared the draft of an analogous standard. It took into consideration the results of research studies conducted in recent years with regard to improving the methods of designing road "pavings"; many refinements were introduced, but the same axle-loads were retained for the motor vehicles as before—6 and 8 tons. It was this which did not suit the Ministry of the Automotive Industry. And the figure "10" had nothing to do with this; it was the "6" which hampered them. Because by that time, having forcibly crowded out the lightweight trucks, approximately 100,000 motor vehicles a year with axle-loads of 8 tons were coming out onto the country's highways.

Abolition of the standard untied the motor-vehicle manufacturers' hands. According to data of USSR Gosplan, by the mid-1980's the country's assembly lines were turning out tens of thousands of such trucks annually. Having not been designed for them, the roads of the lower network (Categories 4 and 5), which, as of early 1987, comprised 80 percent of the general-purpose main highways, had begun to be intensively worn down and ruined. In this connection, the motor vehicles were breaking down the roads, and the roads were breaking down the vehicles.

The leading officials of the USSR Ministry of the Automotive Industry explained their actions as being required by scientific and technical progress, one of whose trends is the increase in motor vehicles' carrying capacity without any cardinal changes in their models. But, of course, this could be done not merely by increasing the motor vehicles' axle-loads. Other methods are also well known: reducing the weight of the truck itself, using extra-wide tires, improving the engine, and creating economical trailer trucks. But when there is no will to do so, it is easy to ignore even the obvious. In short, the "red light" was turned on for motor vehicles having a small carrying capacity.

Disturbed by such a situation, the USSR State Committee for Science and Technology in December 1980 adopted a resolution entitled "On the Optimal Structure of the National Economy's Truck Pool for the Period to 1990." This document mentioned for the first time trucks "with axle loads of 8 tons," but their number was limited to 3 percent. It was also at that time that USSR Gosstandart and the USSR Ministry of the Automotive Industry recommended speeding up the development and approval of the standard entitled "Motor Vehicles and Trailer Trucks: Weight Parameters and Sizes," taking into account the structure of the motor pool as approved by the resolution.

After completely ignoring this recommendation as well, the motor-vehicle manufacturers continued to increase the production of trucks with 8-ton axle loads. As a result, the approved optimal structure was completely nullified. As early as 1985 this country's motor pool numbered far more than 3 percent but as much as 20 percent of its trucks with 8-ton axle loads.

Let's depart a bit from our chronology of events and devote ourselves to such questions as the following: what kinds of trends are to be seen in worldwide motor-vehicle manufacturing? Could it be that the Ministry of the Automotive Industry is right after all and the rest of us have a lack of understanding? No, it is not right. In the developed countries motor vehicles with a carrying capacity of LESS THAN TWO TONS constitute 75 percent of the production volumes. In our country this percentage is lower by a factor of 6-8 percent.

What happens when the hauling of small amounts of freight is transferred to large-capacity trucks? Enormous and superfluous expenditures. If, let's say, for example, a batch of parts weighing 1.5 tons is delivered to its destination by a truck with a 2.5-ton carrying capacity, then, even in this case, the transportation costs (in comparison with the ideal case) is increased by 15 percent.

The "enthusiasm" for heavy-capacity motor vehicles has led to increased road wear, which costs the state from 3.6 to 4 billion rubles a year, as well as to a lessening of the efficiency of motor-vehicle transport. It has been calculated that the additional annual transportation outlays

amount to 1.3-1.5 billion rubles. According to data from the NIIAT [Automotive Scientific Research Institute] of the RSFSR Ministry of Motor Transport, traffic speed has fallen off by 30-50 percent in this connection, the resources of motor vehicles and trailer trucks has declined by 30-40 percent, and the service life of tires has declined by 40-50 percent. At the same time there has been an increase in the time periods required to deliver items and the need for the maintenance and repair of rolling stock, along with a 40-percent increase in fuel expenditures. Such is the price for that "progress" in motor-vehicle manufacturing which the USSR Ministry of the Automotive Industry advocates.

And so the national economy was in need of lightweight transport and waiting for motor vehicles which would be new in principle. But the leading ministry for 20 years merely renovated what it already had on its assembly lines. In order to draw out the matter of the approved standard for loads and sizes, the sector's staff has proposed its own variants over the last few years. They have been worked out by the NAMI [Scientific Research Automotive Institute], which, we are firmly convinced, expressed a purely departmental point of view rather than a scientific one. Therefore, all its proposals were turned down.

Finally, in 1982 the USSR State Committee for Science and Technology and USSR Gosstandart assigned the RSFSR Ministry of Motor Transport, together with the USSR Ministry of the Automotive Industry and the RSFSR Ministry of Highways, the task of developing a new standard to replace the abolished GOST 9314-59. The NIIAT soon presented Gosstandart with a draft normative document. It again provided for only two axle loads, varied as to the classes of motor vehicles—6 and 8 tons.

This draft was sent around to 40 ministries, departments, and organizations. Thirty positive and 10 negative responses were received. Moreover, all the negative ones were replies from the Ministry of the Automotive Industry and its motor-vehicle plants. Expressing themselves as "for" the draft were the USSR State Committee for Science and Technology, the USSR and RSFSR Gosplans, USSR Gosstroy, the USSR Ministry of Transport Construction, the RSFSR Ministry of Highways, and the RSFSR Ministry of Motor Transport.... Moreover, these last two communicated the viewpoint supported by all the highway and motor transport ministries of the union republics. Nevertheless, USSR Gosstandart under the obvious pressure of the USSR Ministry of the Automotive Industry did not approve this standard.

Furthermore, in August 1986 it again sent around for examination a GOST entitled "Automotive Means: Axle and Full Weights," wherein with a persistence worthy of a better use it imposed (it is difficult to select a better



word) the variant favored by the Ministry of the Automotive Industry. Naturally, the Committee on Standards received negative responses from the concerned ministries and departments, after which it undertook no actions whatsoever.

In return, they were undertaken by the RSFSR Council of Ministers, which proposed the approval of the GOST developed in 1983 on the weight parameters for motor vehicles with axle loads of 6 and 10 tons. Let me add that the economic efficiency to be derived from its introduction would amount to approximately 2 billion rubles a year.

In this regard B. Sokolov, the first deputy chairman of USSR Gosstandart, held a conference with the participation of all the parties concerned. It adopted a decision to approve the normative document worked out by NIIAT of the RSFSR Ministry of Motor Transport. But literally a few days later Gosstandart went back on its word: it said that until the leading officials of the Ministry of the Automotive Industry agreed, the new GOST would not be approved. And the motor-vehicle manufacturers are stubbornly sticking to their guns. The circle has been closed again.

Is it about time that we broke out of it? Because, of course, this is essentially a matter of the economically optimum structure of our country's motor pool. This is a matter of state importance, and it must be solved by proceeding on the basis of the entire state's interests, rather than those of an individual sector.

02384/09599

#### **Auto Research Institute Official on New Technology**

18290001 Moscow ZA RULEM in Russian No 9,  
Sep 87 p 1-2

[Interview with V. Kutenev, director of the Central Motor Vehicle and Automotive Engine Scientific Research Institute, by ZA RULEM correspondent V. Arkushe]

**[Text] Dozens of plants among which are giants that are numbered among the largest in Europe and the world. Millions of automobiles produced. The scale of our automotive industry is impressive. Its successes are the result of the constructive labor of the Soviet people which began 70 years ago with Great October. It is symbolic that the task of achieving the highest world technical levels for a majority of items in the shortest possible time has now — during the period of preparing for the glorious anniversary — been assigned to our branch just as to all of our industries.**

It was emphasized during the June Plenum of the CPSU Central Committee that the carrying out of radical economic reforms and the establishment of an integral system for managing the economy would provide an

opportunity to satisfy the needs of society by making maximum use of the achievements of scientific and technical progress. Applied to the automotive industry, this means that the vehicles, which will soon be produced, must embody the most advanced designer, construction and technological solutions considering the requirements of the Soviet consumer. Branch science and its leading design organization, the Order of the Labor Red Banner Central Motor Vehicle and Automotive Engine Scientific Research Institute (NAMI), have been called upon to play a leading role here. An interview, which NAMI director V. Kutenev gave to our correspondent V. Arkushe, was devoted to this.

[Question] Vadim Fedorovich! Our readers know that the state of affairs in automotive science was a subject of discussion during a special session of the USSR Supreme Soviet commissions. It was especially emphasized that the rates of research and the depth of work should leave today's requirements behind and insure a reserve for the future. How would you describe the activity of the institute in light of this requirement?

[Answer] On the eve of October's anniversary, it is appropriate to recall that the decision itself to establish our institute (at the time, a laboratory) in 1918 — several years before the serial production of motor vehicles began — seemingly implied this outstripping nature of its activity. It is necessary to mention that the work of Soviet scientists in the area of automotive and internal combustion engine theory and automotive materials and in researching cross-country capabilities was embodied more than once in interesting serially-produced designs — from the first NAMI-1 passenger car to modern models.

These same authoritative commissions, however, acknowledge that the present condition of automotive science — therefore, this pertains to NAMI also — does not insure the speeding up of the branch's technical progress. One of the main reasons is the inadequate level of leadership in scientific research work. During the past decade, the real activity of the ministry was basically concentrated on serial production: insuring its requirements and effectively controlling the fulfillment of the planned quotas. At the same time, technical policy questions — the long-range development of designs, the improvement of motor vehicle types, standardization and unification questions — were secondary. The stress was accordingly shifted and the proportions in the institute's activity were disturbed: work on comparatively minor subjects, operational development and, as we say, the tracking of serially-produced designs in production based on modernization stages squeezed the work on long-range designs of a fundamental nature.

Moreover, much of what the institute did lay on the shelf because of the limited capabilities of the plants and the absence in them of incentives to master new designs. This dampened the ardor of the employees and at times gave birth to a sluggish attitude toward work.

There are other reasons also. Long-range research often ran into departmental obstacles and did not receive the necessary scope because of the poor efficiency of inter-branch communications and the "stubbornness" of chemists, petroleum chemists, metallurgists, and the developers of new construction materials.

[Question] Evidently, NAMI directors have already outlined steps to change the situation in the institute?

[Answer] Briefly, we are faced with restructuring our work so that the priority avenues in it will be singled out more clearly. First of all, there is the designing of long-range (for the next 10-15 years) models of various motor vehicle transport systems. These are needed in order to translate into reality and to test the most original and promising ideas concerning designing, ergonomics, safety, ecological, and other qualities. Of course, these models must be super-economical and super-safe, have perfect aerodynamics, etc., with respect to the vehicles that are coming from the conveyor lines today. Their researching and operational development will permit the optimum solutions to be found for this or that assembly, unit or system which we will be able to recommend for incorporation into serially produced vehicles of the near future.

Based on world experience, we think that this method will assure a leading level in motor vehicle equipment much more effectively than the process, which is being practiced of developing designs for specific models in NAMI with their transmission to the plants (for example, the Ural-375, KAZ-4540 and the 1.5-ton cargo truck for the Kirovabad Motor Works that is being built.

A great deal of attention will be paid to forecasting the technical level of future motor vehicles, conducting technical and economic research, and systematically updating prospective types of motor vehicle transport systems.

A considerable role is being allotted to the development of new designing methods using electronic computers. Undoubtedly, we will also continue joint work with the plants on the most critical assemblies in the new and modernized vehicles on the basis of cost accounting [khozraschet].

It is important to achieve the optimum proportions between the mentioned types of activity: Subjects, which are oriented toward the future for the purpose of sharply raising the technical level of the work on operating and consumer qualities, must be in first place.

[Question] To a decisive degree, the success of scientific research depends on the experimental base. How can one rate its present level in NAMI and what will be done to strengthen it in future years?

[Answer] Actually, our main task — the establishment of a reserve of advanced scientific and technical work — can be solved only on the basis of modern methods and by using automated stands and the latest monitoring and processing equipment. These will permit the most typical operating conditions of practically all motor vehicle units and assemblies to be reproduced under laboratory conditions and the period for operational development and the mastering of designs to be significantly reduced. Possessing information on the size and nature of stresses, it is possible to research assemblies for a motor vehicle that has still not been born and to imitate its operating conditions accurately.

[Question] We are evidently talking about stands with programmed controls....

[Answer] Of course. For example, the automated complex for testing engines is such a one. The program for the computer contains the parameters of the motor vehicle being designed: weight, transmission gear ratios, and the rolling motion and aerodynamic resistance factors. The load on the engine, the movement speed, and the profile of the road are also given. The engine indicators — power, torque, crankshaft turning frequency, fuel expenditure, and others — are monitored automatically. Using these stands, they evaluate whether the parameters of the new engine correspond to the technical specifications.

On another automated stand called a "thermal shock", the motor is subjected to thermal shocks: After operating under maximum capacity conditions with the cooling liquid at a temperature of no less than 85 degrees C, it runs under idling conditions during which cold liquid is pumped through the cooling system. The cycles are repeated often, forcing the main engine items to operate under conditions of sharp differences in temperature and a rapid change in mechanical and thermal stresses. This method provides an opportunity to evaluate the failure-free performance of an engine 30-50 times faster than any road test.

The starting qualities and thermal conditions of a motor are investigated in a refrigeration chamber where the temperature reaches -50 degrees C. The sounds, which are made by the engine, are studied in an acoustic (sound-proofed) chamber. There are special stands for testing separate assemblies: filters, pumps, fuel system, cooling system, and lubricating system. All told, they permit an engine to be thoroughly completed mainly in the laboratories.

[Question] Is it possible to relate these words to other assemblies and units in a motor vehicle?

[Answer] Undoubtedly. The opportunities for automated complexes based on solenoid-operated hydraulic pulsers are especially great: Using them, the strength of frames, bodies, cabs, and suspension elements is investigated. The magnitudes of the stresses and the nature of

their changes are set on the basis of data received from road tests after a mathematical processing of the results. That is why the stresses, which are created on a stand during accelerated testing methods, reproduce extreme operating conditions. One can say that the present equipment has permitted the effectiveness of stand testing to be significantly raised and the timeframes for developing new designs to be sharply reduced.

[Question] Nevertheless, a motor vehicle receives its final evaluation and its start in life after road testing....

[Answer] Here, the decisive word belongs to the Central Scientific Research Proving Ground (TsNIAP NAMI.) I will point out that the use of its special roads and structures permits the operational development process of motor vehicle equipment to be significantly condensed and speeded up and its duration to be reduced three-fivefold and, in some cases, 10-fold in comparison with actual operations.

In order to thoroughly evaluate the operation of a motor vehicle under extreme climatic conditions, a northern branch of TsNIAP has been established in the city of Susuman in Magadan Oblast, and a southern proving ground for testing automotive equipment is being built during this five-year plan (in the city of Pskent near Tashkent.) It will be put into service in 1989.

The research base of the TsNIAP itself near Moscow is being considerably expanded: New projects are being built and equipped. The most important of them is a wind tunnel. Its construction has been completed and the adjustment of the equipment is taking place. Here, they will begin the researching and operational development of full-scale models of motor vehicles including truck trains and buses. This will provide good preconditions for improving aerodynamic shape, economy and noise abatement. It is these qualities that now determine the competitiveness of a motor vehicle.

A building for investigating active safety measures will be started in 1988. It includes an acoustic center with sound measuring chambers and laboratories for conducting certification tests. Using the new equipment, we will be able by 1990 to conduct all types of certification tests for compliance with the existing 70 Rules of the United Nations Economic Commission for Europe that concern safety and the ecology.

Having received a certificate of this compliance, it is possible to export a motor vehicle without hindrance to the countries on whose territory the requirements of the United Nations Economic Commission for Europe Rules are in effect. A considerable portion of this work is still being conducted abroad. By transferring it to the proving ground's laboratory, we will save currency and time.

Finally, I will mention such a large structure as the climatic chamber building with a hydraulic pulser room (we have already talked about this type of stand.)

The role of NAMI as a scientific research center will grow a great deal with the commissioning of the above listed projects.

[Question] Judging from what you have said, the task of converting NAMI into a genuine cerebral center for the branch has already been practically solved

[Answer] As a matter of fact, the institute already has the status of the leading scientific, research and design organization in the automotive industry. However, under the conditions where scientific and technical centers, which have been called upon to develop models for the immediate future (three-five years from the beginning of work), are being formed in large production associations, the responsibility, power and authority of our institute should be raised considerably. Without a doubt, this requires the concentration of scientific cadre and a further expansion of the research base and testing facilities. Only on this basis, is it possible to see to it that future vehicles possess the operating and consumer qualities which meet the most advanced level of the world's automotive industry.

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**Minsk Auto Plant Improves Production Standards**  
18290009 Moscow *EKONOMICHESKAYA GAZETA* in Russian No 42, Oct 87 p 9

[Article by M. Lavrinovich, general manager of BelavtoMAZ Association: "The Path Is Difficult, But It Must Be Traversed: M. Lavrinovich, general manager of the BelavtoMAZ Association, recounts how the association is bringing production up to world-class standards"]

[Text] "Among the socialist obligations assumed by the collective of the leading enterprise of the BelavtoMAZ [Belorussian motor vehicle] Production Association—the Minsk Motor Vehicle Plant—one of the points is: 'To increase the quality and competitiveness of motor vehicle equipment in the foreign market. To strive so that by 1990, 90 percent of it matches the standards of the best world-class achievements!' How do we intend to solve the assigned task?"

"The first steps have been taken. In the 12th 5-Year Plan, series production was begun of the new family of MAZ-6422 vehicles. These vehicles are more economical, durable and reliable than the MAZ-5335's, which are well known in 50 countries of the world. In the opinion of specialists, the new model on the whole matches the engineering standards of similar foreign models, but this does not mean that we have attained the dominant position in the world market. We are facing competition

from countries which, for many years, have been the prominent trend-setters in this sector of machine building. In order to keep up with them, it will be necessary to revise the usual approaches to the development of motor vehicle equipment."

"I will tell briefly where we started from. Eleven complete engineering teams were established in the association. Their task included the development of assemblies, units and systems which surpassed the world-class standards. In addition, they organized a young peoples' creative collective for the development of a principally new generation of (modular-type tractor trailers). Contacts with the related enterprises of Tatra (CSSR), IFA (GDR) and the (Chepelskiy) Motor Vehicle Plant (Hungary) are also helping to increase the engineering standards and the competitiveness of the equipment".

"This made it possible by last year to set up the production of tractor trailers based on the updated MAZ-54322 and MAZ-64227 truck tractors, with an increased operating life (450,000 km instead of 320,000 km), a 6 percent reduction in fuel consumption and a maintenance servicing interval that has been increased by a factor of 1.2-1.6. Nevertheless, they are inferior to the best foreign models from Mercedes-Benz and Volvo with regards to fuel and oil consumption and the extent of service life."

"Therefore, the improvement of motor vehicle equipment has continued. Within the association, they began to organize at an accelerated pace the production of tractor trailers for international transport and export with an operating life of up to 600,000 km without major repairs, a maintenance servicing interval that had been increased by a factor of 1.2-2 and a 16-18 percent reduction in fuel consumption. In December of last year, acceptance tests were completed on these tractor trailers and this year, by the 70th Anniversary of the Great October Revolution, the first group of them will be prepared for widespread usage tests within the Sovtransavto [RSFSR Ministry of Motor Transport's Main Administration for International Motor (Services)] system."

"The work on the new equipment has indicated that, as before, a number of questions remains unsolved. And as long as we do not find an answer for them, our vehicles will not constitute a strengthening of competition in the world market. What do I have in mind?"

"First, tires. The USSR Ministry of the Petroleum Refining and Petrochemical Industry's enterprises, in the shortest possible time frame, need to develop and organize the production of (steel) cord tires for highway tractor trailers, with a reduced rolling resistance factor, which, in comparison to ones currently in use, would ensure a 5-8 percent reduction in fuel consumption and which would last up to 120,000-130,000 km."

"Then they would not differ in the least from the 'footwear' of the leading foreign firms: Michelin, Goodyear and Continental. And, in addition, it is necessary to increase significantly the durability of seals, hoses, gaskets and the quality of oil and lubricants."

"Second, new engines. The USSR Ministry of the Automotive Industry needs to assist the Yaroslavl'skiy Engine Plant in accelerating the production of the YaMZ-8424 power units with a 360-420 hp rating and improved fuel and oil consumption ratings and service life for the heavy-load MAZ tractor trailers. Besides this, it is necessary already in the coming year to complete the updating of the YaMZ-236M engines, which are installed in 70 percent of the Minsk Motor Vehicle Plant's vehicles."

"In my opinion, it is impossible to increase sharply the engineering standards and the quality of the vehicles as long as specialized production lines have not been established within the sector for manufacturing standardized assemblies and parts which match world-class standards—the driver's seats, the body (fittings), the rear-view spherical mirrors, the (self-adjusting) fasteners and the swivel plates and trailer axles."

"All these are current tasks, but, indeed, it is necessary to think at the same time about the future as well—about new motor vehicle designs. In order to have productive development, they also must be changed greatly."

"We understand that only when the association has a strong test and experiment base which makes it possible not only to make experimental models, but also to manufacture small industrial production runs, is it possible to shorten greatly the path from the designer's drafting table to the production line. For this purpose, we are establishing at the Minsk Motor Vehicle Plant a shop for small production runs, in which we intend also to carry out the modification of vehicles in accordance with the customers' orders, taking into account their specific requirements."

"Jointly with the sector's main institute—NAMI [Central Motor Vehicle and Engine Scientific Research Institute]—we will conduct the initial research on the development of the next generation of MAZ highway tractor trailers. They will be produced in the 13th 5-Year Plan."

"The improvement of motor vehicles and their quality and reliability is unthinkable without the widespread application of progressive technologies. At our plant, for example, we have begun the process of laser thermal hardening of a whole series of parts and we are introducing resource-conserving technologies (particularly in the field of plastic metal working)."

"The success of the solution of all these problems is determined by the selection of the association's engineering section personnel and their preparedness. Here, it must be stated frankly, there is a lot of work. We get very few young specialists in such fields as electronics, design

and automatic design systems. And yet, I would call these the priority trends for technical progress in motor vehicle building. In our opinion, this is something for the workers of the USSR Ministries of Higher Education and the Automotive Industry to think about."

"Reaching the world-class standards is a matter of not only the newest designs, but also the irreproachable assembling of the vehicle. The following example is more eloquent than any figures. As is well known, the customers obtain a portion of the vehicles directly at the plant. And many are used to the fact that before a long trip, the drivers perform their own 'personal servicing': they tune the engine and tighten nuts. On a brand new vehicle! This, of course, is a reproach to the manufacturers. Therefore, it was enjoyable to see the surprise of one of the drivers when he could not find anything on which to apply his own skills to 'prep' a vehicle that he had just obtained. It was not necessary."

"What had changed? The peoples' attitude towards this matter. And State Acceptance deserves a lot of the credit for this. With its introduction, quality circles began to be formed at the enterprise. Now there are more than 70 of them. Five workers' collectives received the right to pass on their own output with a team stamp [of approval]. Ones such as the team which prepares the front axle beam (team leader V. Stabrovskiy) and the team which tests air-bag leak-proofness (M. Yutsova). But these, of course, are just the first steps."

"We intend to increase even further the technological discipline and to take a tough-minded approach to the monitoring of the maintenance of the requirements of the technical processes. In order to do this, we are equipping the checking and testing stations, laboratories and production shops with the necessary stands and instruments and we are correcting the design specifications. Changes and more precise definitions have been introduced into the technology for the manufacture of 2,300 parts. (Initial) supervision of the quality of the work on the part of the designers and the manufacturing engineers has been intensified."

"As experience has shown, a number of the vehicle defects uncovered in the operating process has been caused by the low quality of the assemblies and parts received by us. It is necessary to reinforce the influence of the USSR State Committee for Standards' territorial organs on the suppliers of poor quality goods. For now, economic sanctions are being applied only to large enterprises. We have more than 200 small suppliers who both ruin the delivery time frames and do not keep an eye on the manufacturing quality. And they simply can not afford to pay the fines. What should be done with them? It seems to me that the economic responsibility for breaches of contractual obligations should be between them and the corresponding ministries. Let them pay from their centralized funds for the poor work of their subordinate enterprises."

"In talking about the quality of the motor vehicle builders' output and its assortment, only one factor need be considered: does it meet world-class standards or not? Today there can be simply no other criterion. One thing is certain: we are capable of producing vehicles that are not the least bit inferior to the best foreign models. We have the necessary scientific and design development capabilities. But there must be a basic restructuring of the entire mechanism for the development of a new vehicle and the machine builders must be oriented towards the attainment of principally different goals."

"We have entered upon this path and we see that it is difficult. But we must go down this path."

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## RAIL SYSTEMS

### Problems in Scientific Support for Rail System Development

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[Article by Yu. Zakharyev, GUDOK correspondent: "The Pets and Pariahs of Transport Science"]

[Text] Experience has convinced us, it was pointed out during the June CPSU Central Committee Plenum, that the monopoly position of individual organizations seriously hinders scientific and technical progress and turns over large losses for society. This is also characteristic of transport.

GUDOK has written more than once about the poor technical equipping of classification yards. These articles talked with pain and anger about how tens of thousands of rail cars are battered, and hundreds of thousands of rubles of damage are inflicted because of the fact that cars are braked manually with shoes in the overwhelming majority of classification yards. Of the almost 300 yards in the system, retarders exist only in 148 and they manage without the "services" of speed regulators in 30. The mechanization of the semihumps (and there are approximately 260 of them) has not been started at all.

There is a wealth of work but its rates are very low today. Ministry of Railways Directive No G-2424 dated 25 April of this year states: Of the 31 humps that were provided for during this five-year plan, six were mechanized last year and 87 are planned for this year. Why so slowly?

A. Vasin, deputy department chief in the Ministry of Railways traffic main administration, answered me: "They are producing few retarders."

I acquainted myself with the plan for this year. Four plants in our ministry must provide more than 700 retarders of five types to the yards.

S. Nedorubov, department chief in the Ministry of Railways plant main administration, explained: "We could provide more, but they do not require more — and if the capacities of the enterprises are not now working on retarders, they are loaded with other products. However, the traffic and communication main administrations have not at all decided what kind of and how much equipment they require ...."

Here, I will have to interrupt Sergey Yevdokimovich in order to explain the situation. In 1984, it was decided during a meeting of the Ministry of Railways scientific technical council to produce only two types of retarders — the VZPG-VNIIZhT and the RNZ-2 that was designed by the DIIT [Dnepropetrovsk Rail Transport Engineer Institute] and the Giprotranssignalsvyaz Institute [State Design Research Institute for Designing Signaling Systems, Interlocking, Communications, and Radios for Rail Transport.] This decision looked very progressive and, at the same time, extremely risky.

It is good that only two types (out of seven!) remain. This simplifies the production, servicing and repair of equipment. However, you see, one of the two prospective retarders (VZPG) had not undergone even operational testing at the time. And although almost three years have passed since the meeting, the plants are producing five types. Judging from my discussion with S. Nedorubov, the plan for producing retarders in the future, it appears, has still not been settled.

In the plant main administration, they claim: "We need a clear-cut program." It does not exist. Last year, they counted on the VZPG-VNIIZhT and planned to reduce all others. The situation has changed today. They are installing the produced retarders poorly ....

Last year, the plant main administration workers had to exert maximum efforts in order to manufacture 20 VNIIZhT [All-Union Scientific Research Institute of Railroad Transport] retarders in Chita and Kaluga. Having aroused everyone and everything, they recarved the requisitions and selected additional material and components in Gosstab and many ministries. It was not easy for the factory workers in Kaluga and Chita. The equipment was changed immediately and production processes were developed. As a result, the devices were being produced by the end of the year although at the cost of disrupting the plan. The Kaluga plant alone failed to provide products worth many thousand of rubles.

Despite all of this haste, not one of the manufactured VZPG is yet working.

How to explain this situation: The yards are choking without equipment, and it is not hurrying there. Based on someone's will, a retarder, which has hardly come from the design bureau, is proclaimed to be a long-term one. Is it possible to find reasons for such a technical policy?

The fate of the device, designed in DIIT, turned out to be a difficult one. In 1970, a test retarder model of the pressure type — RNZ-71 — was manufactured based on basic scientific work by S. Tsymbalyuk, an institute docent. The next year, it was tested successfully at the Nizhnedneprovsk-Uzel Yard. The scientist defended his dissertation and the Chaplinskiye road work shop produced a batch of the devices. They were installed at the same yard. They operated effectively without breaking down. However, they were in no hurry to recognize the device.

It was only in November 1977 that a Ministry of Railways commission gave a positive evaluation to the test RNZ-71M retarders. The following March, the Giprotranssignalsvyaz Institute received the task to draw up the design, plans and specifications in 1979. The first plant batch of these retarders arrived at the sorting humps in 1984, that is, 14 years after the work began! Today, more than 1,340 retarders are being used at the parking positions of the yards. Their introduction at the humps permits one to manage without rail car speed regulators.

A completely different path was prepared for the VNIIZhT retarder — the VZPG. In 1981 a group of scientists, who had never before worked on yard equipment, received the assignment. K. Isayev, a respected scientist and a specialist on track machinery, headed it. After three and a half years, two retarders, which had been manufactured at the Kaluga plant, were being tested in the yards at Lyublino and Perm.

After several months, one of them was moved to the yard at Debal'tsevo where operational tests were conducted for three months. They immediately gave the "go ahead" for serial production. In 1986, the first 20 retarders were manufactured after the already described efforts of the Ministry of Railways and other ministries. Up to now, however, only one is operating — at the second position of the Debal'tsevo yard — and another three have recently been installed....

In January of last year, however, the VNIIZhT retarder was named the only long-term one, which is capable of replacing all the others, during a meeting in the ministry. At the time, they only saw advantages with the VZPG and only shortcomings with the other retarders. The decree mentioned: gradually reduce the production of RNZ-2 and KNP-5 and increase VZPG.

Two retarders were exhibited a year ago at an international railroad exhibition. A comfortable bus carried the excursionists from the gate directly to one — the VNIIZhT. Experienced specialists consulted with the visitors. Those, who wished to do so, left notes in the individual comment book. I had occasion to read them: only boasting. But a place had not even been found in the album for a photograph of the DIIT retarder. Yes, and they even placed it in a far corner of the exhibit where only rare visitors strayed. There were no ads.

It is approximately the same picture with encouragement for the designers of the new devices. The collective of 23 individuals, which designed the VZPG, received first prize in the system contest "For Designing and Introducing a Highly Economical Invention." All of them were awarded the title of "Best Inventor in the Railroad System." The ministry gave incentives to 120 individuals who had participated in some way or other in the appearance of the only copy of this type of retarder that was operating at the time. The DIIT specialists apparently were not offended. They intended to nominate them for the USSR Council of Ministers prize, but ... they were late in submitting the documents.

I visited the yard at Debaltsevo last year.

A. Gladyshev, the chief of the signaling system and communications division, expressed to me the unexpected and, perhaps, first critical evaluation: "It is early to advertise the VZPG." He explained the operating deficiencies.

At the eastern hump in Debaltsev, the retarder was not tested under very difficult conditions — at the second position paired with another that had already been recognized as not being a long-term one at the time. Surprisingly, however, the "non-long-term" KNP-5 braked the cars more often and the long-term VZPG rested.

V. Bozhko, the chief of the hump, explained to me: "We did not have time to adjust it."

He shared his difficulties with me: The yard workers installed the control circuit on their own. Incidentally, it was necessary to do the same thing several months earlier at the Lyublin hump. Later, they explained to me in the Ministry of Railways that the circuit had not been provided by the designers. The operators also had two weld larger shaped openings on the surfaces of the tires as a reinforcement. Here also, the practice introduced its own adjustments. In order to eliminate fracturing of the hydraulic power cylinder rods, the designers had to increase the diameter by a third. In a word, there were many shortfalls — yes, and now another group of designers from the VNIIZhT design bureau is paying attention to the VZPG.

Thus, this means that the evaluation of this retarder was clearly overstated and that the advances, which were given during the contest of innovators, were too generous. Why? ...

Throughout the entire story it is not even this that is surprising. The two types of retarders — the RNZ-2 and the VZPG — were intended for different positions in classification yards: the first for parking ones, and the second for the descent portion of humps. A different task, different capabilities, and suddenly ... they become competitors.

Yes, Professor K. Isayev very confidently said in a conversation with me that the VZPG retarder is a universal one and in a three element version it will operate successfully at parking positions and .... It will be possible to do without the RNZ-2.

This confidence, however, was not corroborated by practice. Ye. Shcherbakov and V. Korol, department directors in the communications and traffic main administrations, regard the idea skeptically. In their opinion this type of retarder should today prove its viability in action at the main hump positions, and the group of designers must simply bring it up to the standard, forgetting about generous awards and vivid publicity.

Concerning losses. During a meeting with S. Tsymbalyuk in Dnepropetrovsk, we talked about the difficulties of introduction and about how he had to leave the institute at one time offended. He told me how they had prevented the modernization and reduction in the price of the RNZ-2. Last year, it would have been possible to save approximately 3.5 million rubles if they had provided an opportunity at the time to complete the device.

No one had time for the "pariah." The Giprotrans-signalsvyaz Institute had strenuous plans and there were no employees for the RNZ-2 retarder. The Kaluga plant design bureau was engaged in developing the VZPG.

It is good that the situation has now begun to change. Plans for the production of yard equipment in the next few years are being approved. Now, the production of the RNZ-2 will not be reduced; on the contrary, they plan to accelerate it gradually. Finally, forces and resources are being provided for its modernization. How many years did it take for the innovation, which was born on the periphery, to reach manhood?!

In conclusion, a few words about moral losses. Many scientists in transport VUZ are engaged in developing and introducing different technical innovations. However, the role of pariahs, which are often prepared by them, undermine their belief in success and in the correctness of evaluations. At times, people throw away work, which has been begun, because they are offended and they even leave the institutes. It is difficult to convert these expenses into rubles. However, it is evident that they hinder technical progress in transportation.

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